THE OLD TIMER'S BULLETIN

OFFICIAL JOURNAL, ANTIQUE WIRELESS ASSOCIATION, INC.

Published for the Old Time Wireless Operator, Historian and Collector

Vol. 23 SEPTEMBER 1982 No. 2

William G. Housekeeper holding one of his first water-cooled tubes.

See page 16 for story.

Devoted to research and documentation of the history of wireless communications.

Member:
American Association of Museums
Regional Conference of Historical Agencies

ANTIQUE WIRELESS ASSOCIATION, INC.

HOLCOMB, NEW YORK 14469

Founded 1952. Chartered as a non-profit corporation by the State of New York

OFFICERS

PRESIDENT
Charles Brelsford (K2WW)

VICE-PRESIDENT
Lauren Peckham

SECRETARY
Richard Ransley (WA2TLR)

TREASURER
Lincoln Cundall (W2LC)

COMPTROLLER
Dexter Deeley

CURATOR
Bruce Kelley (W2ICE)

COUNSEL
Sherwood Snyder (W2KFU)

DIRECTORS

H. Blodgett	(W2UTH)
A. Crum	(W2BWK)
K. Gardner	(W2BGN)
H. Lott	(W2ARX)
H. Smith	(K2HC)
F. Bennett	
R. Fish	(W2OWF)
C. Minges	(W2VVG)
B. Roloson	
C. Dengler	(W2LK)
C. Daykin	(W2AFE)
G. Batterson	(W2GB)
R. Leigh	(W2SNI)
R. St. Louis	(K2LKH)
R. Schamberger	
Joyce Peckham	
W. Shaw	(W2HYN)

A.W.A. JOURNAL

"The Old Timers Bulletin"

Editor: Bruce Kelley

Asst. Editor: Dick Ransley

The OLD TIMERS BULLETIN is published approximately four times a year at Holcomb, NY by and for members of the Antique Wireless Association, Inc., a non-profit historical society chartered by the State of New York.

This publication does not accept paid advertising nor is it liable in any way in any buying or selling transaction entered into by its readers as a result of its contents. The Old Timers Bulletin is available only as part of the Antique Wireless Association membership fee and its issuance is subject to change as to frequency, content and size from time to time.

DUES:
PAYABLE TO TREASURER
Lincoln Cundall
69 Boulevard Parkway
Rochester, NY 14612

FIRST CLASS MAILING:
1 year - $ 8.00
2 years - $16.00

THIRD CLASS MAILING:
1 year - $ 6.00
2 years - $12.00

OVERSEAS MAILING:
1 year - $10.00 (Airmail)

Effective June 1, 1980

HONORARY MEMBERS

Lloyd Espenschied
Clarence Tuska
Grote Reber
George Grammer
Harry Houck
Elliot Sivowitch
Dr. Leonard Fuller
R. H. G. Mathews
Amory Waite

COMMITTEES

A.W.A. Conference
Lauren Peckham (Chmn.)
C. Brelsford, B. Roloson,
R. Ransley, L. Cundall,
R. Williams, K. Gardner,
Helen Kelley

Museum Artifacts
Bruce Kelley, W2ICE
Dick Fish, W2OWF
Dexter Deeley

Museum Maintenance
C. Daykin, W2AFE
R. St. Louis, K2LKH
W. Ehlers, WA2JMH
E. Culver, WA2JAA
L. Cundall, W2LC

Houck Award
R. Morris, W2LV (Chmn.)
A. Goodnow, W1OM
T. Mayes, W6AX

Tyne Award
L. Peckham (Chmn.)
P. Dowd, W2GK
B. Roloson

Educational and VHF
Henry Blodgett, W2UTH

Film Shows
R. Ransley, WA2TLR
A. Crum, W2BWK

Amateur Station, W2AN
Geo. Batterson, W2GB
Bill Shaw, W2HYN
Bruce Kelley, W2ICE

Advisory Committee
R. Merriam, W1NTE
R. Morris, W2LV
L. Moreau, W3WRE
T. Mayes, W6AX
W. Green, W7JY
J. Pavek, W0OEP
F. Hammond, VE3HC

WHO TO WRITE TO: (Write legibly. Enclose S.A.S.E. for prompt reply.)

Charles Brelsford (President) 255 Danbury Circle So., Rochester, NY 14618
All official business, Conference and meeting activities (Tel. 716-244-9519)

Lauren Peckham (Vice-President) Ormiston Rd., Breesport, NY 14816
Material for Vacuum tube column. Conference activities (Tel. 607-739-5443)

Richard Ransley (Secretary) 9 Belden Ave., Sodus, NY 14551
Meeting notices, business reports, membership applications and Old Time Ads

Lincoln Cundall (Treasurer) 69 Boulevard Parkway, Rochester, NY 14612
All dues, address changes, membership applications (Tel. 716-663-0856)

Bruce Kelley, Main Street, Holcomb, NY 14469 (Tel. 716-657-7489)
All material for AWA Bulletin. Museum activity.

Dexter Deeley, 8 Briar Circle, Rochester, NY 14618
Bulletin mailing and back issues. Financial reports.

Bruce Roloson, Old Bath Road, Penn Yan, NY 14527
Electrical equipment and light bulb development. Museum Planning Chairman.

Robert Morris, Sunset Lake Road, RFD #1, Sparta, NJ 07871
Houck Award Chairman and associated activities.

Kenneth Gardner, 42 Oakdale Ave. So., New Hartford, NY 13413
All business relative to amateur radio activities. Net Lists and Contests

OLD TIMERS BULLETIN

Printer: D. Ray, WA2PKS
Mailing: L. Cundall, W2LC
Computer: H. Smith, K2HC

Contributing Editors:
Keys/Telegraph: L. Moreau, W3WRE
Loudspeaker Column: F. Paul, W6THU
Amateur Activities: K. Gardner, W2BGN
The Tube Collector: L. Peckham
Old Tyme Ads: R. Ransley, WA2TLR

REGIONAL MEETING/HAMFEST REPRESENTATIVES

Washington D.C. area: J. Nagle
Florida: J. Smith
Upper Mid-west: J. Pavek
I.H.R.S.: R. Smith
California (C.H.R.S.): T. Mayes
New England: A. Douglas
South-east Conference: R. Lawrence, B. Harrison and R. Lozier
New York: L. Peckham, R. Ransley, S. Sykes and Joyce Peckham

IN THIS ISSUE

SPECIAL FEATURES

Page — Feature

4. Association News
4. Collectors club in Australia
5. Coming Events
6. RADIO PRODUCTS COMPANY
   Alan Douglas & Wilson Norwood
7. CONVERTING the SW-3 Receiver
8. TELEGRAPH STAMPS
   by Don deNeuf, WA1SPM
9. TWO MEN NAMED YAGI
   by Yardley Beers, WØJF
9. New Members
10. Results 1982 OT CONTEST
    by Ken Gardner, W2BGN
12. Review Recent Articles
12. Texas Broadcast Museum
13. Key and Telegraph by Lou Moreau
14. Closeup
16. WM. G. HOUSEKEEPER
    by J.W. Stedenfeld, W2TBS
17. The Telemobiloscope
17. The Sharp Memorial Hall
18. The J.S. TIMMONS RADIO Corp.
    by Floyd Paul, W6THU
19. Designing a CRYSTAL SET
    by Tex Sloat, W7AHK
20. POPOV'S DETECTOR
    by Pete Gummelt
21. Restoring a MARCONI 106
    by Joe Horvath, W6GPB
22. COLOR CODES by Ed Taylor
23. - 24. Book Reviews
25. AWA Museum activities
26. - 28. Old Time Ads

What's Coming Next!

in the "Old Timer's Bulletin"

The Radiola Model 17 and 18
History of Bliley Crystal Co.
Early Telegraph Makers
Collecting Batteries
Arthur Wehnelt's Cathode
History of the Vidicon
The A-K Horn Speaker
Pioneer Station French F8CT
Lodge-Muirhead Coherer
How to make A,B and C Supply
The HRO Receiver
Armstrong's Super-Regen set

COMING EVENTS

ANTIQUE WIRELESS ASSOCIATION

Sept. 12 Gaithersburg Hamfest Gaithersburg, Maryland
Sept. 28,29,30, Oct. 1,2 National AWA Conference, Canandaigua, N. Y.
Oct. 16-17 Sun Coast Convention Clearwater, Florida
Oct. 31 AWA Museum closes
Nov. 7 Annual Business Meeting
Nov. 13,14 Annual VRPS/AWA Convention, Dallas, Texas
Nov. 20 Annual Worker's Xmas Party, Ionia, N. Y.

OTB LATE?

AWA cannot guarantee Third Class mail delivery. Further, if you move, 3rd class mail will not be forwarded. If you have these problems, may we suggest you have your Bulletins sent First Class.

In Memoriam

The amateur fraternity has lost two pioneers:

Eunice Thompson, W1MPP, pioneer broadcaster and employee of several early radio companies including Amrad. O.O.T.C. members remember her devotion and work with the club.

Clark Rodiman, W1SZ, former Managing Editor of QST. As administrator and technical writer, the call 1SZ brings back many memories to the old time radio amateur.

Writing AWA Headquarters? Please enclose SASE for prompt reply.....

Change In Address?

Mail information to the Treasurer who handles current mailing list. (NOT the Secretary)

L. A. CUNDALL, W2LC
69 BOULEVARD PARKWAY
ROCHESTER, NY 14612

ASSOCIATION NEWS

COLLECTOR CLUB

Members in Australia are urged to join a new historical/collectors club recently formed called "Historical Radio Society of Australia". Founded in April of this year, they have already printed two Newsletters and are scheduling meetings. We believe membership is currently restricted to members within the country. For more information, write: Ray Kelly
49 Sharon Rd., Springvale 3172
Victoria, Australia

WORLD'S LARGEST CATALOG

of new and used antique radio tubes and parts just released. Although mostly British, there are numerous American items. Due to weight of catalog, mailing cost varies to different countries. Write for cost: Vintage Wireless Co.
64, Broadt St., Staple Hill, Bristol,
BS16 5NL, Great Britain

BACK ISSUES

Historical reference and good reading.....

The following OLD TIMERS BULLETINS remain in stock. Make out check to A.W.A. and mail to:

DEXTER DEELEY
8 Briar Circle
Rochester, N.Y. 14618

Vol. #	Vol. #	Vol. #	Vol. #
15 -1	16 -4	18 -4	21 -4
~~16 -2~~	17 -2	21 -2	
16 -3	18 -3	21 -3	

$1.50 each ppd. (1st class mail)

13 -3	16 -4	19 -4	22 -3
14 -4	17 -1	20 -2	22 -4
15 -2	17 -4	21 -1	

$2.00 each ppd. (1st class mail)

19 -1 19 -3 20 -1 20 -4
Issues with Monograph
$3.00 each ppd. (1st class mail)

17 -4 (Index) 18 -1
$4.00 each ppd. (1st class mail)

Vol. 1 #2 and #3 (reprints for reference) 50¢ each ppd.

ON GUARD!

Members are advised to carefully screen payment for material sold. If material is paid by check in a flea market, insist on proper identification and address. Deliberate issuance of a check without funds is a criminal offense.

Starting this year, all AWA flea market participants must be AWA members and register in advance before allowed on the grounds. A check sheet will verify membership. Members are warned not to make a transaction with anyone unless they have a registration badge (both buyer and seller).

In addition, be careful on "deals" by mail. Fraud by mail can be a Federal offense. What is it all about ?

Seems there has been some questionable activity of late and it is felt members should be warned.....

COMPONENTS AVAILABLE

AWA was recently given a large quantity of high impedance headphones in original boxes. They are available at a greatly reduced price at the Historical Society's Gift Shop, AWA Museum. The earphones are idea for battery and crystal set receivers. Other items available at the shop at reduced prices include large coils of wire for loose-couplers, rf coils, etc. plus an assortment of new and used radio books.

ANNUAL AWA BUSINESS MEETING
Sheraton Motel, Canandaigua, N. Y., 2 PM
Sunday, Nov. 7. Members participation.

AWA NETS (EST/ESDT)

PHONE (SSB) -- 3866 kc. Tuesday 8 p.m.
Mon. - Wed. - Fri. at 9:30 a.m.
Sunday -- 7242 kc. at 12 Noon
Tuesday -- 14274 kc. at 5:30 p.m.

CW -- 3584 kc. daily at 4 p.m.
First Wed. each month at 8 p.m.

SILENT KEYS

D. F. Morris, B. Kendig (WA2YCK)
Robert Hopkins, Jim Beaver (W3AHZ)
E. W. Freeman (KØMOA)

Announcing:

MARYLAND

HUGE HAMFEST

Sponsored by the Foundation for Amateur Radio

Gaithersburg Fairgrounds, Gaithersburg, Md.

SUNDAY, SEPT. 12

This event has one of the largest flea markets in the East. All items are amateur related. Be sure and visit the AWA booth where JOHN NAGLE, K4KJ will have a fine display of early receivers and other artifacts.

FLORIDA

SUN COAST AMATEUR RADIO CONVENTION

October 16-17, 1982

Sand Key Sheraton, Clearwater, Fla.

Special AWA Program at 1:30 PM-- "AMATEUR RADIO MUSEUMS"

John Smith (W4ACG) will be in charge.

NEW YORK

NATIONAL HISTORICAL RADIO CONFERENCE

SHERATON INN, CANANDAIGUA, N. Y.

Wednesday through Sunday Sept. 29, 30, Oct. 1, 2, 3

"The World's Largest Historical Radio Gathering."

Large indoor and outdoor flea markets (restricted to members with old gear). Historical talks, tube seminar, early gear contests, amateur radio meetings, old gear auction (Museum Fund), women's program, etc. For more information, see JUNE OTB or write: Dex Deeley, 8 Briar Circle, Rochester, N. Y. 14618

TEXAS

VINTAGE RADIO & PHONOGRAPH SOCIETY and the ANTIQUE WIRELESS ASSOCIATION presents the 1982

SOUTHWEST REGIONAL CONVENTION

Nov. 12-14, Holiday Inn-Dallas Southwest Special reduced rates at Inn. Easy access to Freeway and Dallas airports. 3 FULL DAYS of activities: Contests, seminars/talks, swapfest and large auction PLUS Annual Banquet with awards and prizes. SPECIAL program for the LADIES!

This gathering could well be the largest collector/historical meet held in the Southwest. Advance program with all information will be sent to members. Additional information may be obtained by writing: V. R. P. S., Box 5345, Irving, Texas 75062 or by telephoning Basil Abbott: (214)-690-4702.

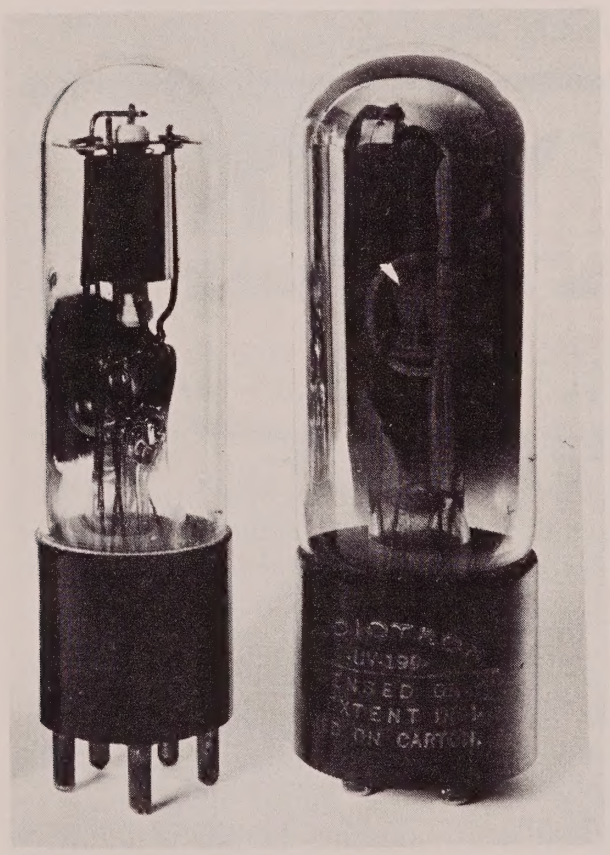
RADIO PRODUCTS COMPANY

by Alan Douglas and Wilson Norwood

Several years ago Walter Smartt brought to the Canandaigua meet a pair of most unusual tubes: a miniature AC triode and a mercury rectifier. They puzzled everyone until Wilson Norwood recognized them as having been used in a tiny cathedral sold by a Newark department store in the early 30s.

Wilson serviced radios at the time, and soon after they came out, was asked to fix these sets; the tubes were only available from the one store (Hahne's) and he recalls going there and obtaining a supply.

I found a descriptive article in *RADIO* magazine, July 1932, that seemed to apply to this cathedral, and with some idea of the correct date, Wilson went through microfilm of the Newark newspapers and found the first ad for the set, on August 9, 1932.



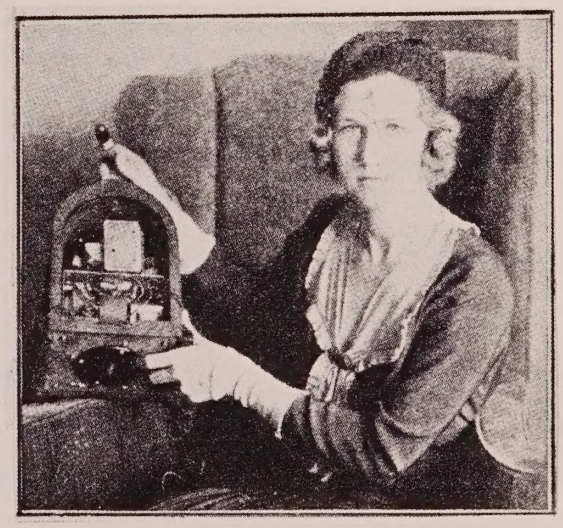
The Radio Products tube (left) compared to a UV-199 tube.

The tubes are triodes like the 27, and take 2.5 volts at about 2 amps. Basing is: pin 1 cathode, 2 plate, 3 grid, 4 & 5 heater; the rectifier base omits pins 2 and 4. The set had six tubes: 2 rf, detector, 2 audio, and a rectifier. It measured 10" high by 6½" square, contained a clock, and apparently used a rochelle-salt piezoelectric speaker driver (which probably explains why none have survived).

Jerry Tyne, and the Newark Public Library, supplied a few assorted references:

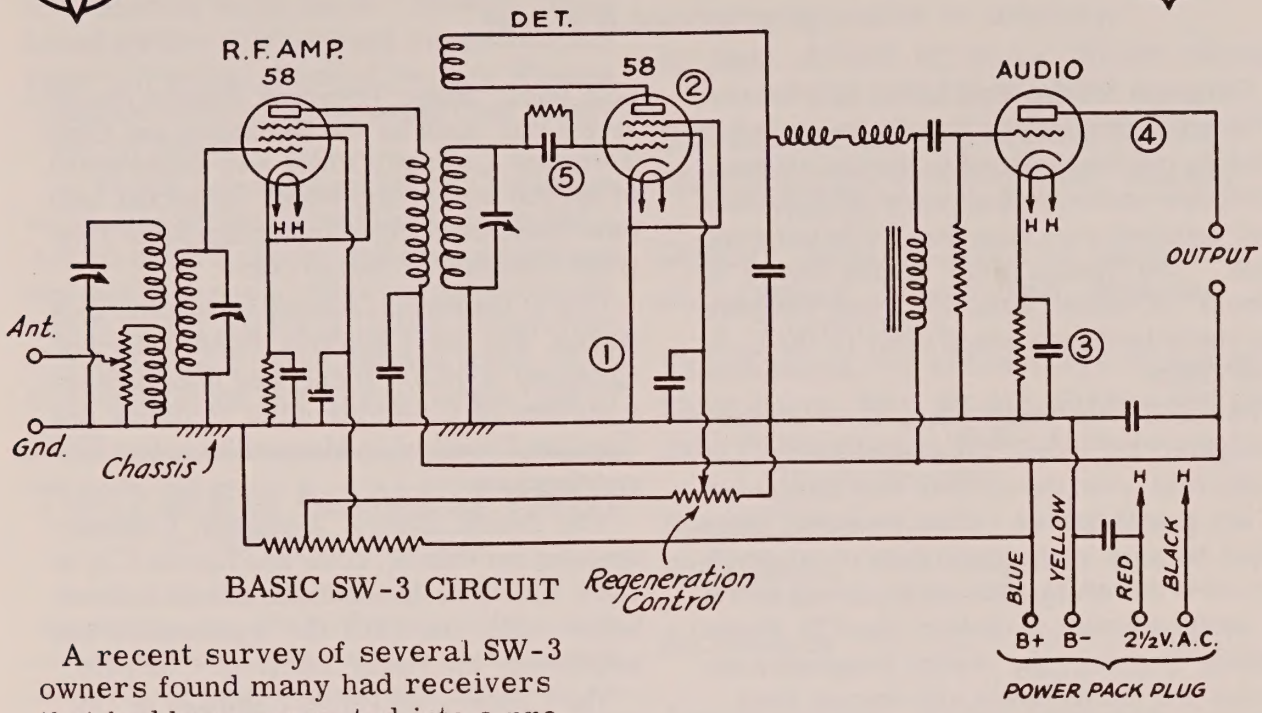
(1) **in 1929, the Schultz Manufacturing Company was at 548 S. 11th Street and made special machinery (Newark City Directory).**
(2) **Vacuum Products Company of Weekawken merged with Schultz to form Radio Products Company (Saga, p. 360, under Phonotron).**
(3) **In 1931 the Radio Products Company is listed in the N. J. Industrial Directory, at 548-556 S. 11th Street, Frank Schultz, president. It made neon and vacuum tubes and employed 18 males and 4 females.**
(4) **No listing occurs in the 1934 Industrial Directory.**
(5) **Nothing is known of the tube engineer, J. V. Capicotto.**

Needless to say, if anyone owns one of these radios, we would love to hear about it. I know they're rare because I asked Nate Alexander and even he doesn't have one!



A poor reproduction of the 7 x 7 x 11" radio as illustrated in the September issue of "Radio News". The set sold for $17.50 with others at $12.50 and $27.50 The set is also described in July '32 issue of "Radio".

CONVERTING THE SW-3

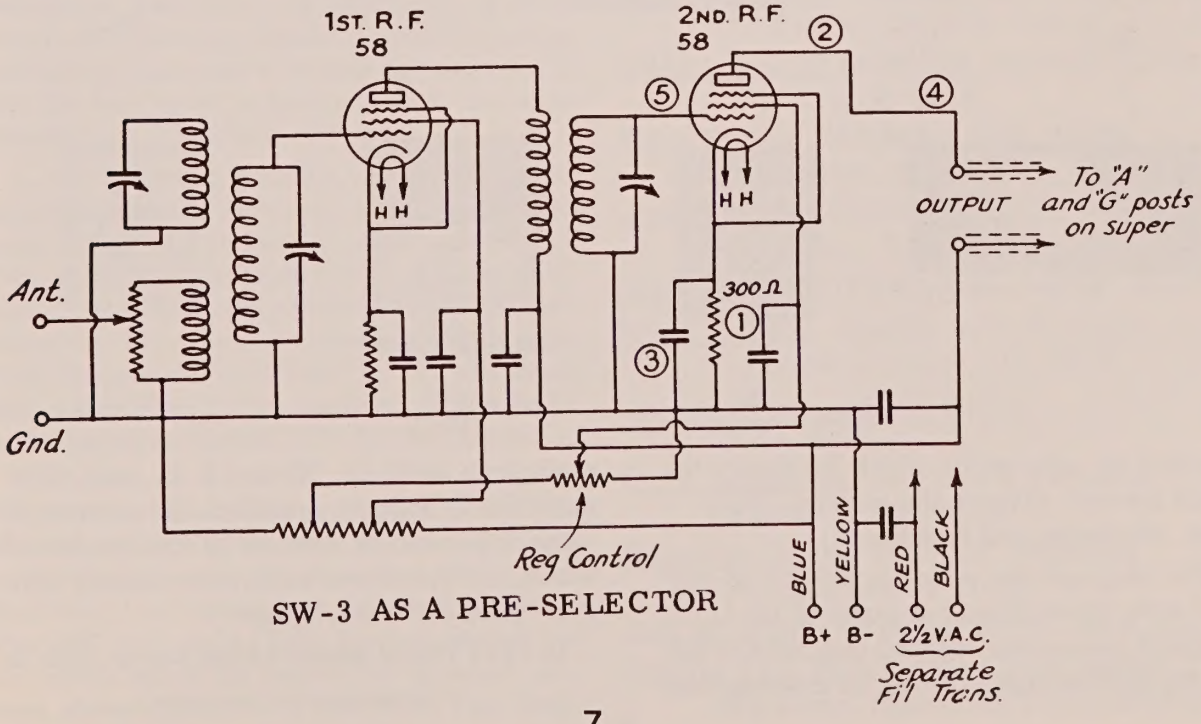


BASIC SW-3 CIRCUIT

A recent survey of several SW-3 owners found many had receivers that had been converted into a pre-selector. In fact, a check of AWA inventory indicated 2 out of 3 had been converted. How come?

The National SW-3 was a popular amateur set in the early 30's but lost favor with the introduction of the super-het. Many early supers did not have a stage of tuned RF and were not sensitive particularly on 10 and 20 meters. The SW-3 as a pre-selector was the answer.

Thousands of these 3-tube receivers were re-wired as a result of articles published in QST and other magazines. Shown is the basic SW-3 circuit and a conversion from page 35, March 1935 QST. Note the change in coil winding. Some SW-3's were found with minimum change-- the audio stage had been disconnected and the regenerative detector capacity coupled to the super-het.



SW-3 AS A PRE-SELECTOR

●●● TELEGRAPH STAMPS ●●●

D. K. deNeuf, WA1SPM

Telegraph Stamps were issued by a number of telegraph companies primarily for use in free franking privileges issued to various railroad, newspaper and express company officials when their concerns were large users of its telegraph lines. The stamps were usually issued in "*books*" of various quantities much like postage stamp books are issued today by the U. S. Post Office.

Philatelists for many years have officially recognized and listed "*Telegraph Stamps*" as collectibles, even though they were never used in any postal service. This doubtless came about because in the early days of telegraph service in this country there were strong efforts in some quarters to induce the US Postal Service to acquire the various telegraph companies and to administer and operate them.

Incidentally the name "*Postal Telegraph Service*" was a psychological effort to ease the way towards achieving this objective. While such efforts were unsuccessful in the U. S., the telegraph and telephone services in the majority of other countries are, and always have been operated by one entity which embraces the postal service. (Hence the identity "PTT" – posts, telegraphs and telephones).

The telegraph not only revolutionized railroad train dispatching, but many of the U. S. telegraph companies enjoyed contracts to utilize the railroad rights-of-way for erecting their pole lines. Some Telegraph Stamps clearly reveal this, such as the Baltimore and Ohio Telegraph Company which was incorporated in several states, and which connected with other lines, such as the Connecticut River Telegraph Company – see (*a*) below.

One of the earliest companies to issue such stamps was the California State Telegraph Company in 1870. It operated lines between a number of California cities including one from San Francisco to Marysville via San Jose and Stockton.

The Pacific Mutual Telegraph Company operated between St. Louis and Kansas City in 1884. One of its 20 cent frank stamps is shown below – (*b*). In 1910 the organization was acquired by the Postal Telegraph Company.

The Commercial Union Company in 1887 had operating lines from Albany through Troy and Berlin to Adams, Massachusetts. One of its 25¢ franks stamps "*good for 20 words*" is shown in (*c*) below.

Some of the Postal Telegraph Company stamps were printed with the initials of a railroad, such as C. G. W. and I. C., and while most franks stamps specified the amount of value expressed in cents or in the number of words, the type shown as (*d*) below merely says it is "*good for one telegram*".

In 1942 Postal issued a frank stamp, pink in

[Continued on next page]

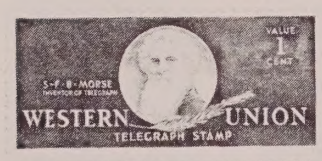
(a.)

(b.)

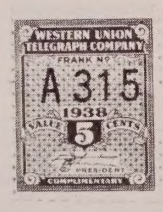
(c.)

(d.)

(e.)



(f.)



(g.)

(h.)

(i.)

[Continued from previous page.]
color, to all its employees in the Armed Forces. It is depicted in (*e*) below. Western Union issued a wide variety of frank stamps for many years – (*f*) and (*g*). Some of the early Wireless Telegraph companies also issued frank stamps – see (*h*) below.

A World Telecommunications Conference was held in Atlantic City, New Jersey in 1947. A frank stamp for use by attendees on messages destined to overseas points was issued cooperatively by All American Cables, Commercial Cables, Globe Wireless, Mackay Radio, RCA Communications and Western Union. See (*i*) below.

TWO MEN NAMED YAGI

by Yardley Beers, WØJF

In the CQ CW DX Contest of 1981 I was delighted to work JH1WIX because I knew from something I had read he was one of the greatest DXers of all time, perhaps best known for his activity in the 1930's as J2GX. I sent him a QSL saying that I remembered him as J2GX, and I got one right back enclosing an autobiography, which had been contained in News Sheet 358, June 1979, of the First Class C.W. Operators' Club (FOC).

Amateurs in Japan are now very numerous. Some U.S. amateurs view them mainly as a means of getting a lot of quick contacts in contests. Others, mainly interested in working rare new countries, may regard them as a nuisances for generating QRM and competition. It may be hard to remember that each Japanese amateur is a human being with talents and failings, and with ambitions. And among this swarm there are individuals who have contributed more to technology and history than some of those who "*strut and fret his idle hour upon*" a barren rock in the ocean handing out "*Five Nine*" reports.

In the 1930's the situation was very different: Japanese contacts were rare, and it was hard to make WAC (and to become what was called a "*Wacker*"). In a statistical summary of the WAC certificates given in the previous year, *QST* stated that a very large number of the applicants (up to 80%, September 1934 *QST*, p. 47) submitted QSL cards from J2GX for Asia. Properly he might have been called "*The Wacker Maker*".

The name of JH1WEX, ex-J2GX, is Taroh Yagi, but he did not have anything to do with the invention of the Yagi antenna, more properly called the Yagi-Uda antenna. It was invented by Yagi Shuji and Uda Shintaro at Tokohu University. The QSL card of JA7YAA, the ham club at the University, which has been active in recent contests, shows a picture of a bust of Dr. Yagi Shuji.

NEW MEMBERS

who are (or were) with electronic communication or industry:

Ed Best (AK4W) BC Stats. WONC, WOOW, WRNB, WKTE, WCBT

Emory Deutsch, Engineering Mepco

Scott Herman, Abitron, CBS, Stations WSPR, WFTN

Douglas Ludwig, Long Line Signal Co.

J. F. Zammit, Dumont Lab, Murcota Corporation

Fred Kahlert, Naval Elect. Sys. Command

Steve Baron, Stat. WLAP, WMMW, WNUR

John D'Haveloose, U.S. Army (station) Repair Service

Ronald Tassi (N3AEA) Bendix Corp.

Wm. Miller (WA5GZK) U.S. Gov't AFB Tx/Elec. Eng.

Ed Sanders (W3AKU, W2QBW, W2AKU, W2VM) F. C. C., Radio Corp. Amer.

Joseph Griffin, Bendix Field Eng. Corp.

James Huska, Radio/TV news reporter

Haskel Arvery, United Tele. Co.

James Dowers (W6QPU, W5EPF, W7GAW) Station WVP

Dean Bush, Stats. WPHC, WVRY, etc.

Henry Arbeiter, Jerrold Electronics, General Instrument Corp.

Dr. Vivian Phillips (Swansea, Wales) Prof./Author, electronic/radio

Jim West (W4THR) U.S. Gover. Safety Services

Wm. Schnaars (W2DHI) RCA Communications, Central Radio

Fexlix Lutold (Reinach, Switzerland) Electronic Tech.

Geo. Fisher (KCØKM) Stat. KSJN, KQRS, KRLT

Fred Childs (WØWQ, WØKPR, W7KPR) Dir. Com. Eng. Burlington North.

Ed Reinke (W7EBF) Stats. KSR, KITQ,

Mark Kahrs, Station WRUR, Dept. of Computer Science, U. of R.

Robert Bradfisch (W4IHY) RCA Service Co.

C. A. Anderson, Northern Telecom (Northern Electric)

Hampton Shirer (WØRZF, W8EER) Signalcrafters Corp.

Jim Schwind (W8MYH) Roch. Tele. Co.

Joseph Fell (WA3GMS) Chief Design Engineer, Spectrum Communication

RESULTS OF OLD TIME ●●●●● ●●●● TRANSMITTING CONTEST

by Ken Gardner, W2BGN

CALL	Pts.	TRANSMITTER	RECEIVER
K4TS	1207	Meisner/ppTZ40, 100w.	
K4TS	1207	Meisner SS/ppTZ-40 100 watts	Super-Pro RME-69
W2LV	1172	eco/(3)6v6/813, 250w.	HRO
K2LP	1022	eco/6J5/6AG7/6L6/ 807/860, 160w.	HRO
W2HYN	1016	80- 59x/210/pp211, 300 wtts. 40-6V6x/6L6/811, 100w.	HRO
W2LC	806	6AG7x/(3)808, 140w.	HQ120X
W1DM	740	VT2 mo/VT2/211A, 150 watts	Pp Vt1-det, Vt1- osc. 216A amp.
W8VSK	740	80/20 meters- mod. 40-eco/25L6/813, 300w.	NC-101X
W4NM	692	59 eco/(2)46's, 40w.	SX-24
W2AN	688	6L6/6L6/TZ-40, 40w.	HRO
W2BGN	615	205D eco/205D/211D 100w.	HRO
W3DB	605	211-C Hartley, 70w.	German E-52B
W8AU	545	6V6/807/ 20 wtts.	Sargent-10 (regen.)
W8BFD	524	59xtal 9 watts	HRO
W4KP	516	47x/210 30 wtts.	SX-9
N3AYU	469	210 Hartley 15-25 w.	mod.
W2VDI	460	47x/pp865's 60w.	Fb7/101X
K2WW	440	47x/(2)46, 25-30w.	Comet Pro
W3BY	434	53x/53/Rk20/pp860's 200 watts	NC-101X
W3HWT	396	210mo/210pa, 40w.	Comet Pro
W3VVS	392	Meisner SS, 7 watts	HRO
K8VBL	385	41mo/42/210/pp210 19 watts	SW-3
W2SN	385	80m- 210 Hartley, 15w. 40m-53ppx, 10w.	3-tube regen.
W3QA	356	Rk20 tri-tet xtal, 20w.	SW-3
W2PHT	344	Modern	HQ-120X
W7KE	336	210mo/410pa, 30 wtts.	SW-3
W5KL	310	245x/210pa, 18wtts.	SW-3
W2FW	288	210x/210pa, 40w. 802eco/807, 20w.	FBXA
W1BVL	282	40-80: 807x 8 to 15w. 20: vfo/807/814, 200w.	Reinartz Mod.
Ve3AFW	278	802mo/(4)814pp, 400w.	Mod.
W3INV	272	59x 10 watts	AGS/RHM
N4EE	260	80: 59x/46pa, 20 wtts. 40:59x/46 dblr, 20w.	Regen. Nat. RAS
AI4P	252	Modern	NC-101X
W2AFE	236	210x/210pa 40w.	Sky Champ
N6JV	236	20/40:807x/TZ40/ pp813, 400w. 80m: mod.	RME-69
W2AAU	200	Modern	Modern
W2IEG	188	Modern	FBXA
Wa3MAS	185	UX210 Tnt/6L6x, 15w.	1 tube reg.
Ka2KGM	182	811 final	Mod.
W1AB	169	Modern	Mod.
Ve3BDV	156	Mod. TX, simulated spark !	NC-101X
W2GB	155	Modern	Mod.
KE2O	147	Modern	Mod.
Ve3MJH	144	Modern	Mod.
W21XH	142	Modern	Mod.
W9DZG	141	Modern	HRO
W4DBT	124	Modern	Mod.
J3AAC	118	Modern	Mod.
Ve1OC	110	Modern	RME-69
N9TT	106	Modern	RU-12 TRF
WØJF	106	80/40m.: 210x/210/ 203A, 100w. 20m.:mod.	HRO/Mod.
Ve4ZX	104	Modern	SS super
K2IC	102	Modern	Mod.
WØFXY	99	Modern	Mod.
W8SS	96	Modern	Mod.
K4IM	92	Modern	Mod.
W8AQ/4	91	Modern	Mod.
W7FS	85	Pr. 210's TNT, 18w.	Grebe Cr-18
K2RY	84	245 Hartley, 11 watts	Mod.
W2ARX	82	210 TNT, 5 watts	Mod.
W9GFS	80	171Ax/171A pa., 5 watts	SW-3
K4JO	77	Modern	Mod.
W6NNV	67	Modern	SW3/Mod.
W1DMD	62	Modern	Comet Pro
W9GJS	61	Type '33 plus Mod.	Mod.
W21YC	60	Modern	Mod.
W6CG	56	Modern	Mod.
W2ZUX	52	Modern	Mod.
Wa9VLK	52	Modern	Mod.
W1FMK	48	Modern	Mod.
Wb9VJZ	48	Modern	Mod.
K9HF	46	6L6x. 10 watts	Mod.
K2NP	44	Modern	Mod.
W4AIW	43	Modern	Mod.
W7HNA	42	Modern	Mod.
K2MP	36	Utah #1, Xtal/PA, 20w.	NC-101X
W3RG	34	Modern	Mod.
W2QLI	33	Modern	Mod.
KB3SI	33	Modern	Mod.
Wa2TLR	28	Modern	Mod.
W2OWF	26	Modern	Mod.
W7JY	26	59 tri-tet/pr. 46's, 18w.	HRO
W8EGF/7	25	Modern	Mod.
W1MB	25	210 TNT, 8 watts	SW-3
W2DQC	24	Modern	Mod.
W1BPI	23	Modern	Mod.
W7LOG	22	Modern	HRO
K1BH	21	Modern	Mod.
W3DUG	21	Modern	HRO
W9SG	17	Modern	Mod.
W7L1X	15	Modern	Mod.
Wb8SIW	12	Modern - 1.5 watt	Mod.
W9HE	12	Modern	Mod.
W7SEH	7	Modern	Mod./'35
K6ARE	6	Modern	Mod.
W61RA	6	Modern	Mod.
W2RFY	3	Modern	Mod.
W2UTH/ KH6	3	Modern	Mod.

SUMMARY

11 OT transmitters ran over 100 watts
38 OT transmitters ran less than 100 watts
6 modern transmitters used a linear
57 modern transmitters used 200 watts or less

Best DX: W2AN - W2UTH/KH6

New Contestants (Welcome !)
W2AXX, W2ARX, N2BLM, W2DQC, KA2HWJ, W2IXH, W2IYC, KA2KGM, K2MP, W2PHT, W2SN, N3AYU, KB3SI, W3DAL, W6IRA, W7AN, W7FS, W7HNA, W7SEH, W9GJS, WB9VJZ, W9POC and WBØIAH.

Number logs received: 98
Logs not received: 7
Number of new contestants: 27

Stations that did not send in log:
N2BLM, KA2HWJ, W3BNO, W3DAL, W7AN, WBØIAH and W9POC

Abbreviations for summary:
x-crystal control, eco-electron coupled oscillator, mo-master oscillator, pa-rf power amplifier, pp-pushpull

Amazing But True

COMMENTS: We broke 1000! "We did it!!! That is the way K. B. Warner, QST Editor, Emeritus, said it after the first trans-atlantic... Oh, Mr. Printer, how many exclamation marks do you have ? Bring 'em all out! We DID IT !!!!

As a matter of fact, 4 stations scored over 1000 led by Charlie Hinkle, K4TS. Also, 10 others broke 500. Therefore, Mr. AWA Printer, Don Ray, WA2PKS.. bring out the exclamation points.

Team work is part of ham radio. In fact every qso calls for co-operation between stations and others on the same frequency. During the contest, how many stood by and accepted other calls? That's co-operation.... 3584 kHz was busy with qso's, beautiful dc notes (es Qrm)-- and just off to one side appeared the sound of a beautiful signal: the spark of MCC. Many OT's caught their breath.. for it was Lou Vermond, VE3BDV, who had permission from the Canadian government to re-create the signal to commemorate MCC's 75th Anniversary.. the old Marconi station on Cape Cod... in comparison it was a beautiful sound compared to present-day sterile sigs..

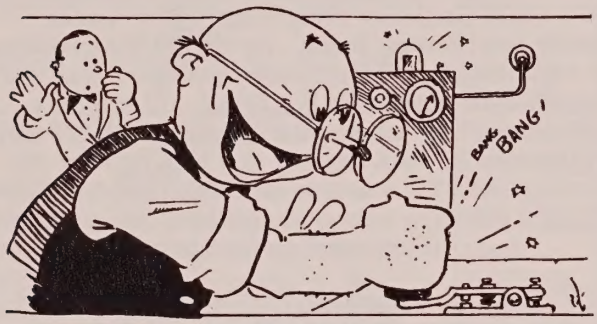
Our best DX in the Contest was chalked up by W2AN and W2UTH/KH6... Holcomb, NY to Honolulu, a distance of 4750 miles. If Fran, J3AAC on Grenada wkd Hank.. it would have been 6250 miles. We hope some of our oversea members will join us in future contests... A high scorer in previous contests, W1PEG, was missing this year due to sub-zero temperatures in his shack. How about a heater Bill? .. Amazing things can happen: W2QLI running 1.5 watts to a mod. transistor rig had a W9 complaining he was QRMing W1AW's code practice !... W3BY picked up a 1935 cabinet xmtr at Gaithersburg built by former FCC Chief Engineer Andy Ring. After much smoke and blowing fuses.. he solved the problem by replacing the 866's... and then there was the smooth RAC note from WA3MAS... 3 stations had a "ping" to their notes: W2ARX with 210 tnt, W3DB with 50 watt Hartley and N3AYU with 210 Hartley. N3AYU was honored with (2) OO notices. W2AN's primary keying rang like a church bell !

(Continued on next page)

[Continued from previous page]

AWA Old Time Transmitter Contest

W2FW had a fb RAC note which got (1) OO notice. Apparently the OO's love rice boxes..... High-power modern xmtrs drive some fellows up the wall. W7FS complained about their QRM while using his old 210 tubes in a TNT and Grebe CR-18 rx...he writes he has some 202's and other components..we can't deny the modern transmitter men the pleasure of working the sweet sounding OT xmtrs...We can only ask them to be discreet and rag-chew on a freq. where qrm doesn't bother anyone..... On this subject, Ken Steckler, W8SS, operated with a mod transceiver but admits he has a TPTG 210 with Bodine MG for plate supply plus a 3-tube RX. Just think Ken the score you would have had with a "5" multiplier.....



"TO POUND BRASS HALF THE NIGHT"

Should we have one extra night with OT xmtrs only..with max input, say 50 watts ? Perhaps we should..The summary shows a remarkable increase in both OT TX and RX..and your letters promise more OT equipment for 1983. Let's make it a banner year in both size and fun! Dates and rules for the '83 event will be announced in the December OTB.... 73, Ken, W2BGN

Cablesystems

AWA ON CABLE TV

Members served by Cablesystems of Eden Praire, Minn., may have an opportunity to see the AWA videotape titled "A Tour of the Antique Wireless Museum". The cable system covers a wide area including Minneapolis. The AWA Board feels this is good exposure for the Association and will promote interest in historical radio.

TEXAS BROADCAST MUSEUM

1701 Market Street
Dallas, TX 75202 748-1112

This museum has been mentioned before in the OTB. A recent news bulletin tells of many new items on display. A place to visit if in Texas.

BRITISH RECEIVER CIRCUITS

AWA has an oversea source of schematics for pre-WWII broadcast receivers made in England. If you have need for such a circuit, send SASE to AWA Headquarters with name and model of set plus 40¢ in stamps.

Quick reference to:

RECENT ORIGINAL ARTICLES

of interest to radio historians

"Modern Operation at WCC" p. 38
"73" magazine, July, 1982

"Artistic Panels", "Electroless Nickel Plating" IHRS, Vol.11, #1

"The Stenotube" Radio Age, Vol. 8,#4

"Experimental Diodes"
MAARC Broadcaster, Vol. 4 , #1

"The Cabot Receiver" Radio Age, Vol. 8, #6

"List of British Radio Shops"
B. V. W. S. , Vol. 6, #4

The addresses for publications reviewed in the OTB may be found on page 24, #22-3. A correction may be found on page 5, #22-4.

Additional addresses:

"Radio Age", 636 Cambridge Rd.
Augusta, Georgia 30909
Rates: $9.00 and $12.00 annually

"The Titanic Commutator"
Box 53, Indian Orchard, MA. 01151
(Write for information)

THE AUCTION

at 1982 Conference

Early auction registration shows some nice pieces to be sold (IP-501, Federal, etc.). If you have pre-registered equipment and at the last moment decide to withdraw, please let me know as soon as possible. This will allow others to place items for sale.

--Lauren Peckham, Chairman

KEY and TELEGRAPH

Editor: Lou Moreau, W3WRE
305 N. Llanwellyn Avenue, Glenolden, PA 19036
All correspondence requires SASE for reply

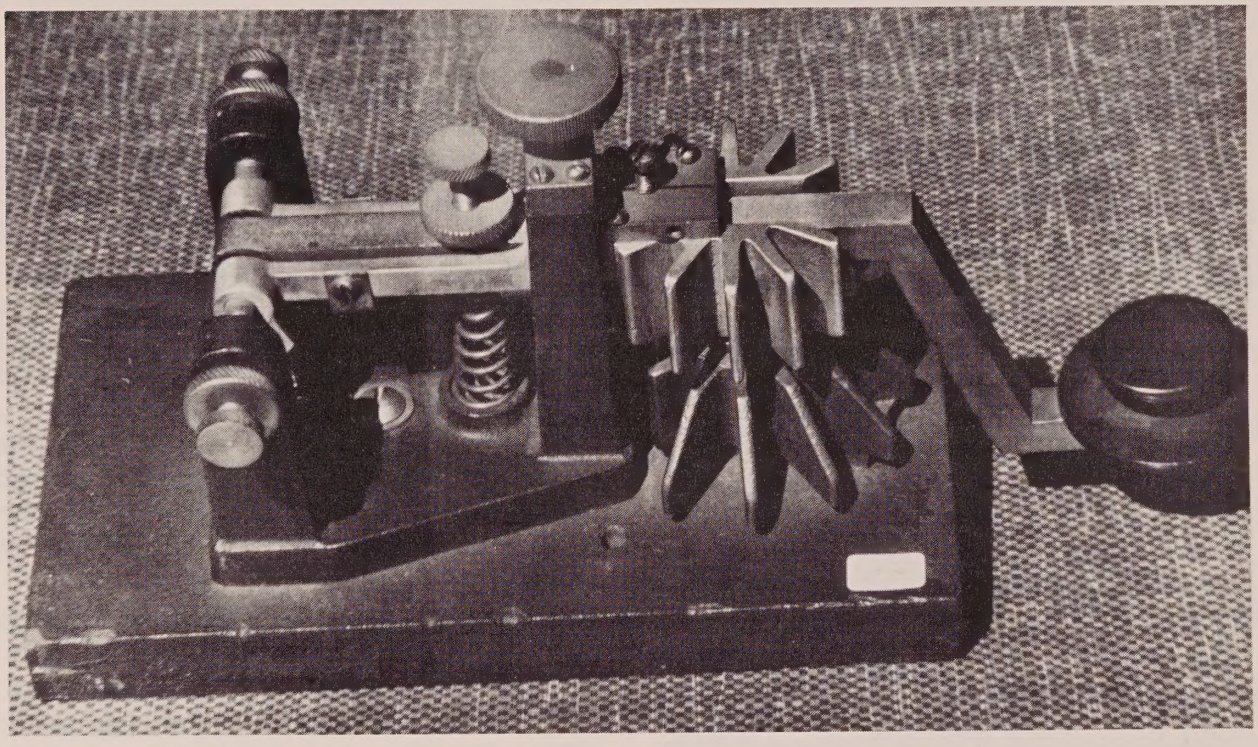


Fig. 1 10 KW. Naval spark key (W2ZI collection)

QUE: Were there many changes in keys for our armed services in the spark era ?

ANS: Yes. The changes came as the state of the art improved. As with most new things, they learned by doing. The large 1905 DeForest 10 Kw. key (Fig. 1) had 1/2" silver contacts mounted on large cooling fins which were suitable for the "brute force" primary keying of spark days. This particular key was used at the Naval station, Penscola, Florida.

In addition, some spark keys were designed to fit special conditions such as flameproof keys used on early aircraft and submarines. The contacts were covered to prevent fire from possible sparking. The key at upper right (Fig. 2) was used in a sub-patrol plane by Ed Raser, W2ZI while on duty during WWI. It was the first plane to have a 1/2 KW 500 cycle set aboard.

The key at lower left was used at a Japanese land station and is an excellent of a rugged WW2 military key.

To collectors: Although WW2 keys are now not in great demand, it is well to note that in time they will be. The use of a hand telegraph key is rapidly becoming a lost art.

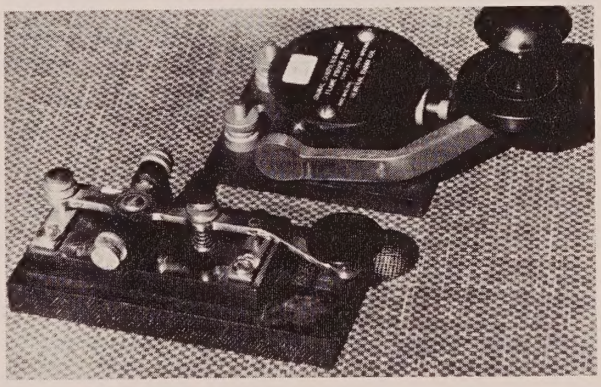
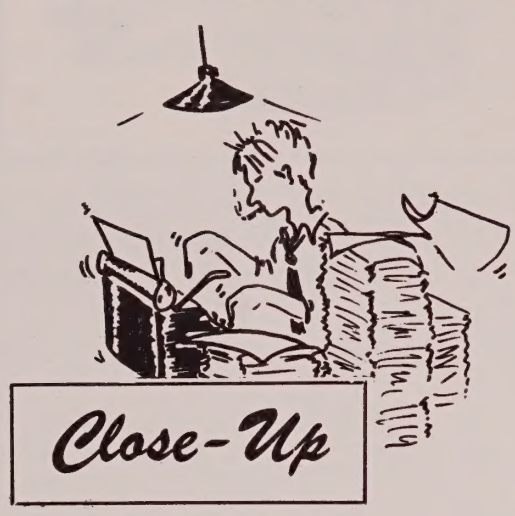


Fig. 2 (W2ZI collection)

QUE: What commercial companies made keys for the armed forces in the spark era ?

ANS: There were several. Here are a few: DeForest, General Radio, Amrad, Vibroplex, L. S. Brach, Western Electric, W. S. A. as well as various Navy Yards.

FROM HEADQUARTERS



10TH ANNUAL ARCA MEET

Rainy weather marred outside activities at the recent ARCA Lake Placid Meet, but the warm hospitality of the Hilton Motel's host, Jack Davis, more than compensated. Food, service and meeting facilities were excellent.

It had been sometime since I had driven to Lake Placid from our camp on the other side of the Adirondacks. I found the 1980 Olympic site most interesting, particularly since, like others, I had watched the games on TV.

John and Ruth Drake did a great job of coordinating activities. I attended several meetings including Ralph William's talk on the A-K numbering system. The first numbers were issued to receivers in 1922 starting with 3590. This series ended in 1924 with 4950 with a change to 7570 in 1925. The last number was 9090 issued 6/29/27 to the Model 51 receiver.

A talk on unusual crystal detector circuits aroused much interest-- particularly the use of dual detectors. One circuit, without the conventional ground return, brought comment. A member seated near me mentioned he had experience with a circuit which momentarily gave response in only one headphone. This was a baffling phenomena (?).. The speaker, Larry Wright, assured the group that his double detector gave response in both headphones.

The discussion ended abruptly when President Drake, his eye on the time, opened a business meeting. It was an enjoyable affair and gave me an opportunity to see old friends such as Paul Giganti....

VERY SAD

Most radio historians are familiar with the picture of Maj. Armstrong standing in the garret room of his one-time home where many years earlier he had perfected the regenerative circuit. He is seen surveying the radio gear of his youth.

The famous house on Walburton Avenue in Yonkers is described in all Armstrong's biographies and most recently in "73" magazine.

What a shock to see a picture of the house in June "73" (page 101) -- it had been vandalized and torched! The famous attic room is but a shell. Art Bonte, W2ZYC, reports that this senseless destruction occurred on Oct. 18, 1981..... but Bob Cobaugh, W2AY adds a happier note: He tells us that an amateur repeater station is operating from the old Armstrong Alpine, N. J. FM site on 220 and 440 mc.

The station is maintained by the Edwin Armstrong Memorial Amateur Radio Club. They are seeking from the FCC the call of W2XMN... Armstrong's old FM call...we wish them success.

I DON'T BUY

Now on the market is a wrist watch containing a tiny AM radio. The receiver draws 2 ma. and is good for 100 hours operation. I don't get very excited over this novelty-- and that is exactly what it is. The user has to run a phone cord from the watch to the earphone. A plain nuisance. Why not have a conventional miniature receiver in the shirt or coat pocket? I am sure it would cost less and work better..

OLD TIME RADIO BUFFS

Each year, hundreds of radio buffs have re-lived the early days of radio programming when they meet in Connecticut. Activities include several well-known former radio stars as guest speakers as well as workshops and sales of nostalgic radio software. I've never attended one of these meets, but they sound like lots of fun. One will be held this year on Oct. 22-23 at the Newark, N. J. Airport Holiday Inn. Write: Jay Hickerson, Box C, Orange, Ct. 06477

[Continued on next page]

Close-Up [Continued from previous page.]

PRETTY HORRIBLE

Earlier this year I received a directory listing antique collectors, clubs and suppliers. It is without a doubt the most inaccurate and poorest publication I've seen recently. It was riddled with errors and mis-information. Here are some examples:

--QST magazine is listed as a supplier/club of antique equipment with a West Hartford address.

QST changed their address to Newington in 1963 and most certainly is not related to antique radio !

--"Ham Radio Horizons" magazine was listed. It is no longer published !

--SOWP is listed as an antique club. I am sure Bill Breniman would be overjoyed to learn this.

--the writer compiled collectors who have been dead for several years such as George Starry..

--In an attempt to build up the directory, he lists the same person several times under different headings.

--In his fumbling attempt to increase names in the directory (without sufficient information) he lists collectors merely as "Ted", "Ed", etc. He obviously didn't known their last name.

--Names were misspelt with incorrect addresses.

--and lastly, many well-known collectors were omitted.

Obviously, I do not recommend this directory.

Along the same line, I recently received a letter seeking general information on "restoring antique radios". The writer's boss, an editor, had given her the assignment since he understood there was a potential market for such a publication. She has my sympathy. I am anxiously waiting its release.

PLUS – MINUS

So far this year, attendance at collector "meets" have not followed the usual pattern. Registration has fallen off at some while others report record turnouts, an example being the AWA/IHRS gathering at Auburn, Indiana, had 208 registered. To bolster attendance, some groups are having joint meets such as one scheduled in Illinois where several clubs got together for a possible 200 to 300 registration.

Flea market interest is greater than ever whereas dinner attendance has dropped drastically, particularly at amateur hamfests. Registration at the Rochester Hamfest was over 5,000 with fewer than 200 at the evening dinner. Maybe the current recession has some fellows "unloading" while others are looking for a "buy" in the flea market.

SPEAKING OF RECORDS

I note that amateur achievement awards were first recorded when the ARRL established their "Worked-All-Continents" award (WAC) in April, 1926. This was followed by "Work 100 Countries" or DXCC in September, 1939.

On the subject of records, I find that the first time a car was driven one mile in less than a minute was in November, 1906, at Ocean Parkway, Brooklyn. A fellow by the name of A. C. Bostwick drove his 40 h.p. Winton the mile in 56.4 seconds or 63 m.p.h. --73, BK

AVAILABLE: RADIO HISTORY ON VIDEOTAPE

If you have a videotape playback you may be interested in a professional movie produced by Harris Corporation at the AWA Electronic-Communication Museum.

The viewer has a half-hour tour of the museum, with commentary, showing radio development from early Marconi days to mechanical scanning television.

Moving at a brisk pace, the tour is climaxed with the operation of high power spark transmitters. It may well be the only sound movie of its kind.

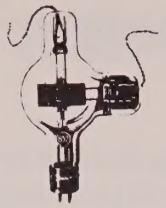
Two different types of videotapes are available:

½" **BETA** and ½" **VHS** at $30.00 each plus $3.50 shipping.

Send order to: PCI Recording Studio
703 Atlantic Avenue
Rochester, NY 14609
(Telephone: 716-288-5620)

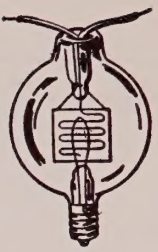
Ask for:

"A TOUR OF THE ANTIQUE WIRELESS MUSEUM"



The TUBE COLLECTOR

Editor: Lauren Peckham
Ormiston Road, Breesport, NY 14816
All correspondence requires SASE for reply



WILLIAM GIBBONS HOUSEKEEPER:

DEVELOPER OF THE GENERAL METHOD OF SEALING BASE METALS, MOSTLY COPPER, TO AND THRU GLASS TO PRODUCE MECHANICAL AND VACUUM TIGHT SEALS.

by J. W. Stedenfeld, W2TBS, ex-W3CWM

After WWI, as commercial radio developed, the race was on for high power transmitting stations for coast to coast and trans-Atlantic communication. This was the era of low frequency, long wave usage, with spark slowly fading out as the Alexanderson type of alternator was becoming the only reliable source of high power. The advantages of short-waves had not yet been recognized and accepted for commercial use. High power, high wattage transmitting tubes had not yet been developed. As an example, in the famous one-way Arlington-to-Paris tests by W. E. in 1915, a bank of *550* W. E. Type W or 204B in parallel were used in the final R.F. amplifier!

William G. Houskeeper, 1883-1962, was monumental in the development of the first high power transmitting and rectifier tubes. He invented and developed small and large seals of metal to and thru glass and devised mechanical designs of large tubes and components leading to tubes of 100 K.W. output. Born in Coatsville, Pennsylvania, he received a B.S. from University of Pennsylvania in 1903, M.E. from M.I.T. in 1905, and E.E. from University of Pennsylvania in 1908.

He first worked for Westinghouse, in Pittsburgh (1907) and Philadelphia (1908), on the first metallic flame arc lamp. From 1908 to 1912 he was engaged in development work on tungsten filaments and lamps at the Bloomfield, New Jersey works of Westinghouse, becoming engineer in charge in the lamp department, developing machines for the production of tungsten filaments, especially in long lengths. He was also in charge of the mercury arc rectifier division.

In 1913 he joined the Western Electric and Bell Telephone Laboratories in New York as engineer in charge of switchboard lamp development. W. E. made thousands of these tiny lamps, using expensive platinum seal wires. Although very expensive, it was the only successful material available; it did not oxidize when heated and the coefficient of expansion was close to that of glass.

Houskeeper was partially successful in using copper wire, which has good electrical and heat conductivity, by using borax as a flux. Differences of thermal expansion causing shearing and tensil stresses caused some failures of the copper to glass seals. Stymied, he conceived, in a sudden flash of inspiration, the idea of "*feathering*" or thinning the cross-section of the copper wire where it passed thru the glass to a very thin edge, thus reducing stresses to lower than the copper-glass adhesion strength and producing a successful copper-to-glass seal.

During WWI Houskeeper had charge of the first factory for the manufacturing of the VT-1 type tubes. In 1918, after the war, he researched tube manufacturing equipment, developed a commercial form of ionization manometer and vacuum flow meter. In 1919 he was in charge of the mechanical designs of vacuum tubes, properties of materials of construction and tube components, and reduction of tube design to commercial manufacturing form. The demand for high power was rapidly increasing, with many people and companies involved in the effort. Using the knowledge and experience acquired with his pre-war copper-to-glass seals leading to a breakthrough in the development of the first really very high power tubes by Western Electric.

These tubes had cylindrical copper anodes, or plates, on the outside diameter which were submerged in circulating cooling water. The first big triode, Type T rated at 10 K.W. was built in 1921, followed in 1922 by a Type U with a 100 K.W. output!

[Continued on next page]

INTERESTING INVENTIONS

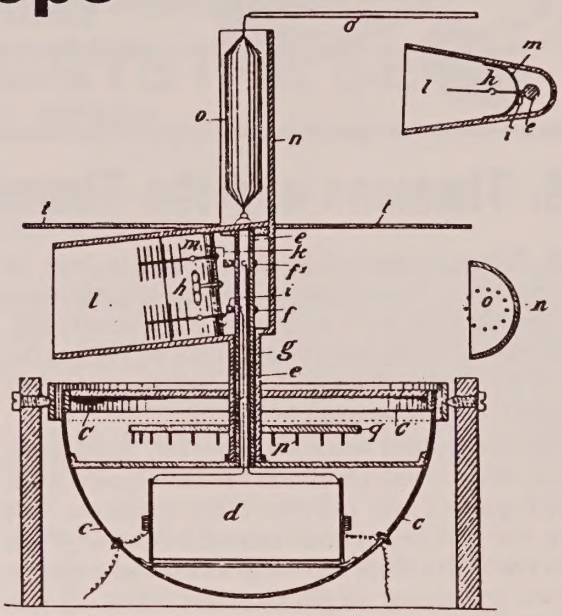
The Telemobiloscope

An Edwardian radar

Many believe the first operational radar was developed during WWII by Watson-Watt and his colleagues. Wrong! In the July 1978 *Wireless World* AWA member Dr. V. J. Vivian Phillips, Swansea, U. K., describes what may have been the first practical radar. He tells of the work done by Christian Hulsmeyer of Dusseldorf in 1904!

At right is a sketch of the equipment he used for his first patent. The coherer receiver with horn type reflector is at top. The spark transmitter and corresponding reflector at bottom. Note the set did not judge distance; it only indicated the presence (and direction) of an object. A full description of the equipment is described in the 1904 issue of *Electrical Magazine*.

(Reviewed by Peter Vanquis)



WILLIAM G. HOUSEKEEPER
(Continued from previous page)

These tubes, along with newly developed large tube rectifiers were used in the trans-Atlantic tests of January 1923.

It is no exaggeration to say that the invention of these seals by Houskeeper made possible the construction of vacuum tubes capable of handling power of almost any magnitude. Although given most recognition for his invention on seals, he said, "*I feel my work on the design of big tubes is much more important than my work on seals*".

His widow, Mrs. Rose Houskeeper, told me that "Billy" as she called him, always gave credit to his associates and the facilities of W. E. and the Bell Labs. Without them he said it would have been impossible to have done what he did. He was granted eight U.S. patents with Westinghouse and 64 U.S. patents with W. E. and Bell Labs with a total of 141 world wide.

He retired in 1929. The last remaining artifacts of his original seals, a few tubes, technical papers, note books and copies of his patents were donated to the AWA Museum by his widow.

--J.W. Stedenfeld, W2TBS

SHARP MEMORIAL HALL

Planning a business or pleasure trip to Japan and wish to see historical radio material ? -- may we suggest you visit Sharp Memorial Hall. You will be pleasantly surprised when you see the large display of early receivers and other equipment manufactured in Japan -- some dating 60 years ago: 1-tubers, TRF, early AC sets with horn speakers, etc. The exhibit is tastefully laid out in a large modern building. For more information, write: Taizo Arakawa, N2ATT
444 Westminister Place
Lodi, New Jersey 07644

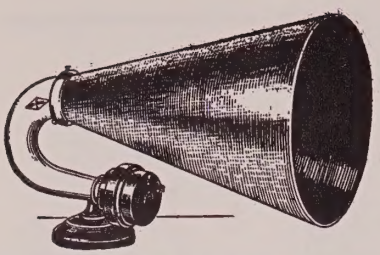
STOLEN!

The following receivers were recently stolen from the Foothill Electronics Museum:

--Kennedy #281, Serial #4408
--Kennedy #525, Serial #5639
--Kennedy #110, Serial #524

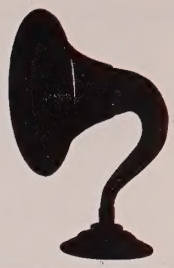
If you have information regarding these sets, please communicate with the museum:

Foothill Electronics Museum
12345 El Monte Ave.
Los Altos Hills, Calif. 94022
(415) 948-8590, Ext. 381



The LOUDSPEAKER

Editor: Floyd Paul, W6THU
1545 Raymond, Glendale, California 91201
All correspondence requires SASE for reply

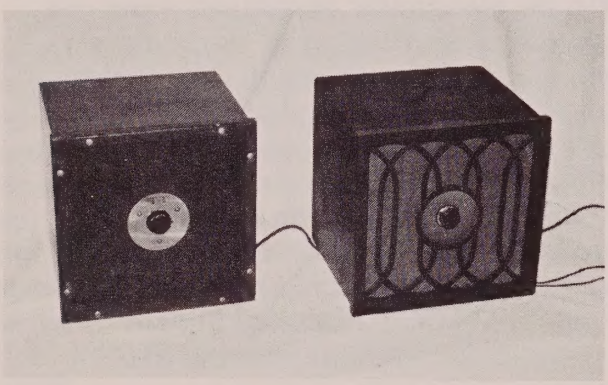


J.S. Timmons and the Timmons Radio Products Corporation

J. S. Timmons started his business in a barn in Germantown, Pennsylvania. He used only his name for identification in the early years of 1922 and 1923. It is believed he incorporated in 1923 or 1924 as the Timmons Radio Products Corporation, a name he retained until he sold out to Philco.

The first product was a horn speaker. A cut-away profile of the re-entry horn was used as a typical ad in early *Popular Radio* and other radio magazines. The horn was built into a small cubical box about 9" on each side with a black wire mesh screen and a volume control adjustment on the earphone driver. It was called a "TIMMONS TALKER". (See picture)

Later, two more horn speaker designs were added. Type N was without a volume control and a type A was with volume control. (See Ad.) These newer designs advertised in 1924 had an added wooden grill decorative feature. The wire mesh screen and the round logo nameplate were of gold motif on the type A.



Left to right: First and second speaker

By 1926 Timmons Radio Products Corporation was marketing two different style cone speakers, a "B" supply, a power amplifier, and a power amplifier and "B" supply combined. The latter supply used a UX-216B and a UX-210 type tube. By 1927 a Concert Grand non concentric cone with a ship's picture on the face was added. In 1928 another cone speaker design was added.

The Timmons Corporation made earphones for other manufacturers and a Wm. Penn headset for the public market but did not use the name Timmons on it. They made two headsets for Brandes. A higher priced, smaller version, was made for the Navy and a commercial, larger version made for the public. The largest earphone buyer was Music Master.

Mr. Timmons estimated his Corporation made about 100,000 earphones drivers for Music Master. Music Master still owed the Timmons Radio Products Corporation money when Music Master Corporation went under. (September 1926 *Radio Retailing* ad announced "receivership" for the Music Master Corporation.) Prior to that time John Timmons said he recognized the over-extended position of the Music Master Corporation and took many opportunities to approach the Corporation for his over-due receivables.

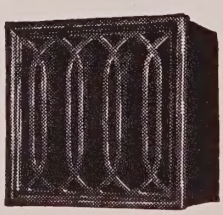
A $100,000 debt was reduced to $50,000 and then to $1,500 when receivership occurred. Other creditors did not fare as well. Mr. Timmons tells of being at Mr. Eckhardt's office (President of Music Master) early every morning just prior to receivership. Each day he left with a check for some amount from Walter Eckhardt. Every day there was another man, always second in line, behind Mr. Timmons. He was a Mr. Sheip. (It is believed he made the Music Master wooden bells.) One day in a joking manner, Mr. Shiep remarked to Timmons, "You must live here".

Mr. Timmons started his training at the Baldwin Locomotive Company in 1911 and completed his apprenticeship in 1914. He went to work for the Callophone Company before WWI. Where he was involved in making intercom paging systems. The company leased the systems but did not sell them. While there he invented a throat transmitter in the chin strap of an aviator's helmet during WWI period which he sold to the Navy.

About 1925, Mr. Atwater Kent asked Timmons to work for him and take certain key responsibilities in the AK plant. Mr. Kent explained he wanted to have more time for other interests. Mr. Timmons thought the offer over and the next day turned it down.

The Timmons Corporation employed nearly 300 employees at its peak production period. The Timmons Radio Products Corporation was sold to Philco in June, 1928.

(Note: The above information was obtained by the author from John Timmons.)



Type N—$25; the other, Type A, is $35

Ad for Timmons in March, 1924 issue of "Popular Radio"

J. S. TIMMONS

339 East Tulpehocken Street
GERMANTOWN, PHILADELPHIA, PA.

DESIGNING A CRYSTAL SET

by Tex Sloat, W7AHK

This project started as a comparison check of various minerals used in crystal detectors. The receiver used six separate detectors, any one which could be switched to the tuner by use of jacks and plugs. Using a curve tracer, I noted the difference while using galena, iron pyrite, silicon and carbonundum.

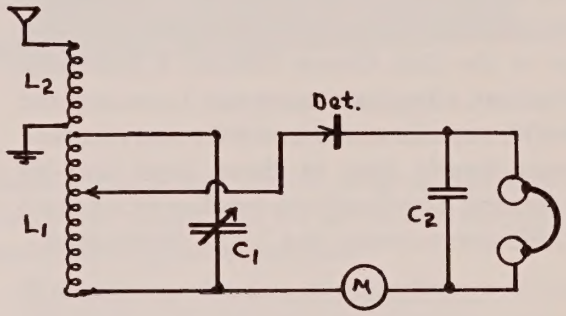
It was interesting, but nothing was found to assist in receiver improvement. Nearby powerful stations almost filled the dial with their babble and the response varied over the broadcast band. Some checking was necessary.

Warming up the Q meter, the coil was checked. It wa a spider-web type made in the early 30's. Its "Q" was 70. I wasn't satisfied with this, so I took a piece of plastic water pipe 2 3/8" in diameter, 3" long and threaded a groove on a lathe, 27 turns to the inch. The new form was wound with #24 enamelled wire with a tap at 12 turns.

A check showed the inductance to be 200 mh. with a Q meter giving 170 at 550 kc., 230 at 1000 kc. and 262 at 1500 kc. This new coil replaced the original and resulted in a vast improvement.

Now to work on the selectivity problem. The writer has always felt that wavetraps used in a situation such as this are "*excessive baggage*", an attempt to overcome deficiencies in the existing circuit.

In all articles written on crystal sets, I can recall nothing on impedance matching. This called for some investigating. I wound another coil of the same dimensions but this time with cotton covered wire so I could get at the bare with a darning needle attached to the crystal detector.



L_1 - See text
L_2 - 8 or 10 turns inside L_1
C_1 - 400 mmfd or greater. I used a Pilot "Capacigrad" in my set.
C2 - .006 mfd.
M - 0 to 50 micro-ammeter (may be omitted for general use.)

Watching a micro-ammeter connected in the circuit and probing the turns, I found good selectivity was at 12 turns from the crystal end. It was even better at the 15th turn but the receiver response dropped off considerably.

This experiment determined the position for the permanent enamelled wire coil and a tap was made at the 10th turn which was a compromise for this particular location and distance from the transmitters. Very simple and no wavetraps! Obviously, different length antennas may have some slight effect on results.

When wiring, keep the coil leads away from the sides of the coil, and do not stray too far from the given values as they were carefully metered. If you wish loudspeaker reception, use a small amplifier such as Radio Shack #277-1008. The writer wishes to thank Logan Belleville for his help and use of measuring equipment.

(Ed note: Another article will appear in a future OTB by Joe Horvath showing another approach to building an efficient crystal set.)

GENERAL INFORMATION

Frequency in Kc.	Distance in miles	Micro-amps signal level	Interference
620	20	50	None
750	36	13	Slight from 620
1080	26	30	None
1190	36	16	Slight from 1080
1480	16	17	None

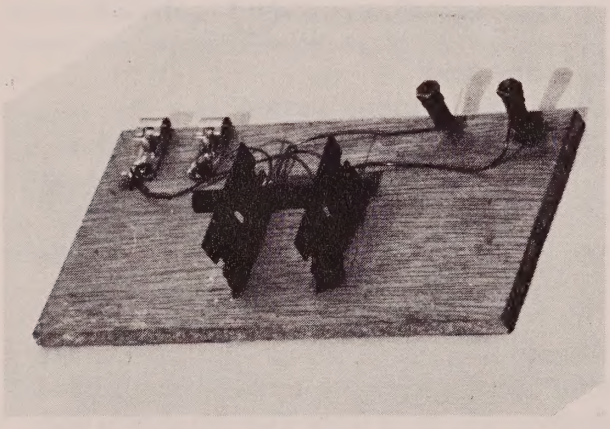
Notes: A Germanium diode used for all measurements.
Daylight reception with all channels 50 KW except 1480 at 10 KW.
Tap on the 10th turn.

POPOV'S DETECTOR

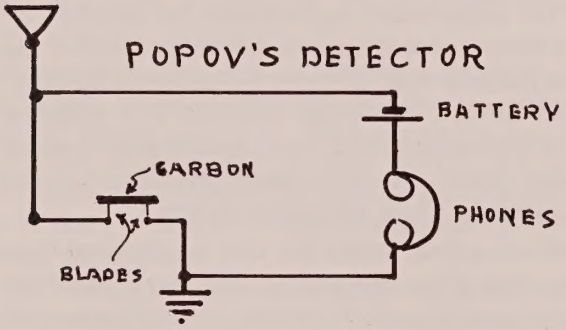
by Pete Gummelt, Victoria, Texas

Linc Cundall's article, pictures, and schematic of the "Oscillaphone" in the March, 1982, edition of the *Old Timer's Bulletin* bring to mind the difficulties in overcoming problems of information and material relating to radio "*way back on the farm*" in Central Texas in 1934.

An awareness of radio and very meager description came to me from the *Book of Knowledge* in the Oak Grove School, a two-room elementary school of yesteryear. I was inspired to build, somehow, a transmitter and receiver. Sharecropper's kids in those days had no money, and plowshed junk was hardly a source of radio components, but I was determined.



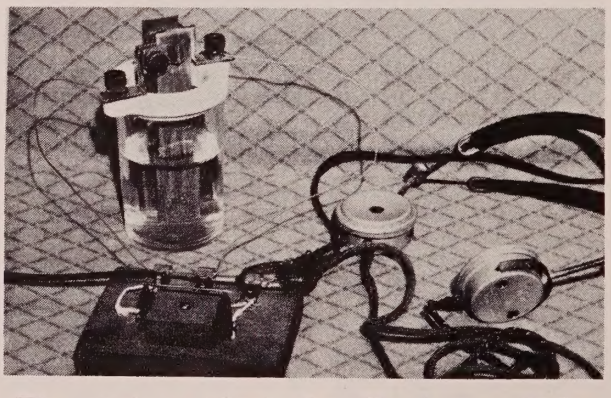
The razor blades are two dark objects in center of picture.



The Book of Knowledge contained an article on the history of wireless, a staid discourse with very little descriptive detail. It introduced me to Alexander Popov's and Shoemaker's experiments with something called the Micro Radio Phase Dectector at the turn of the century. To me the information, such as it was, suggested that I use a light carbon rod laid across the edges of two single-edge safety razor blades to serve as my detector. A carbon rod from a used flashlight dry cell and two Gem single-edge razor blades sufficed. The photo illustrates my original model and the schematic shows how it was used in the receiving circuit.

The first time I went "*on the air*" back there in the early '30's I used a home-brew transmitter with a Ford Model T spark coil as the heart of my rig. The radiating system, that is to say, its antenna, involved two 3" x 3" metal squares cut from a Prince Albert tobacco can soldered to two short lengths of barbed-wire strands. The tips, separated by about a quarter of an inch, provided the spark gap. All in all, it crudely resembled Heinrich Hertz's famous transmitter – sans brass knobs. My Popov-inspired receiver was about 50 feet away. The first transmission and reception were perfect. My kid sister, aged 9, copied me "*five by five*".

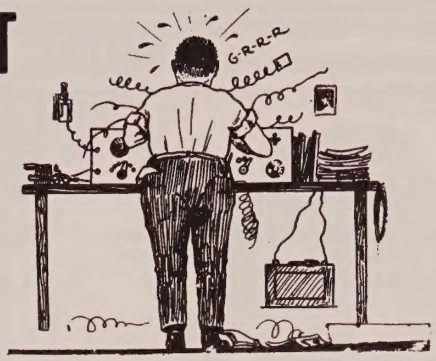
A year or so later I learned about the needle and carbon block Oscillaphone, so I used it to refine my receiving apparatus. The photo brings out some detail of my "*advanced*" equipment.



The carbon-block Oscillaphone. Note the "wet" battery at upper left.

75th Anniversary
1907 - 1982
De Forest Audion

RESTORING OLD EQUIPMENT



How did you SOLVE a problem when re-storing a receiver? Drop us a note telling how you did it.

RESTORING A MARCONI TYPE 106

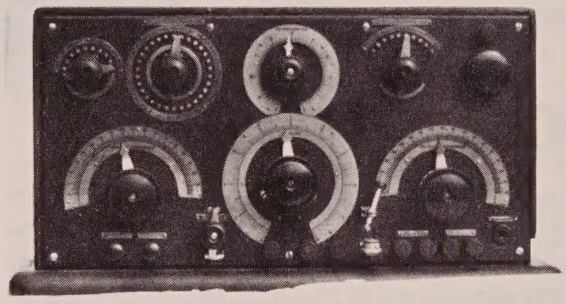
by Joe Horvath, W6GPB

When I first started collecting early receivers I acquired an incomplete Marconi Type 106 set. The front panel had no graduation scales and it was obvious the set never had engraved panel markings like other 106 receivers. (*See photo of an original 106 receiver at AWA Museum with engraved panel.*)

I learned that certain models of the 106 had a metal plate on the panel with the markings. I searched for several years for such a set but could not find one. I had just about given up hope when Frank Camenisch dropped by.

Frank was all smiles as he handed me a copy of *Electronics World*, November, 1959. He said to turn to page 62 which I did and there was a picture of my old Marconi set with the metal dial plates. Former AWA member Howard Pyle had written an article on the set which had been converted to a 106-D. Nevertheless, it was plain to see the two main dials were metal engraved and not the panel itself.

The magazine photo of the 106 matched my



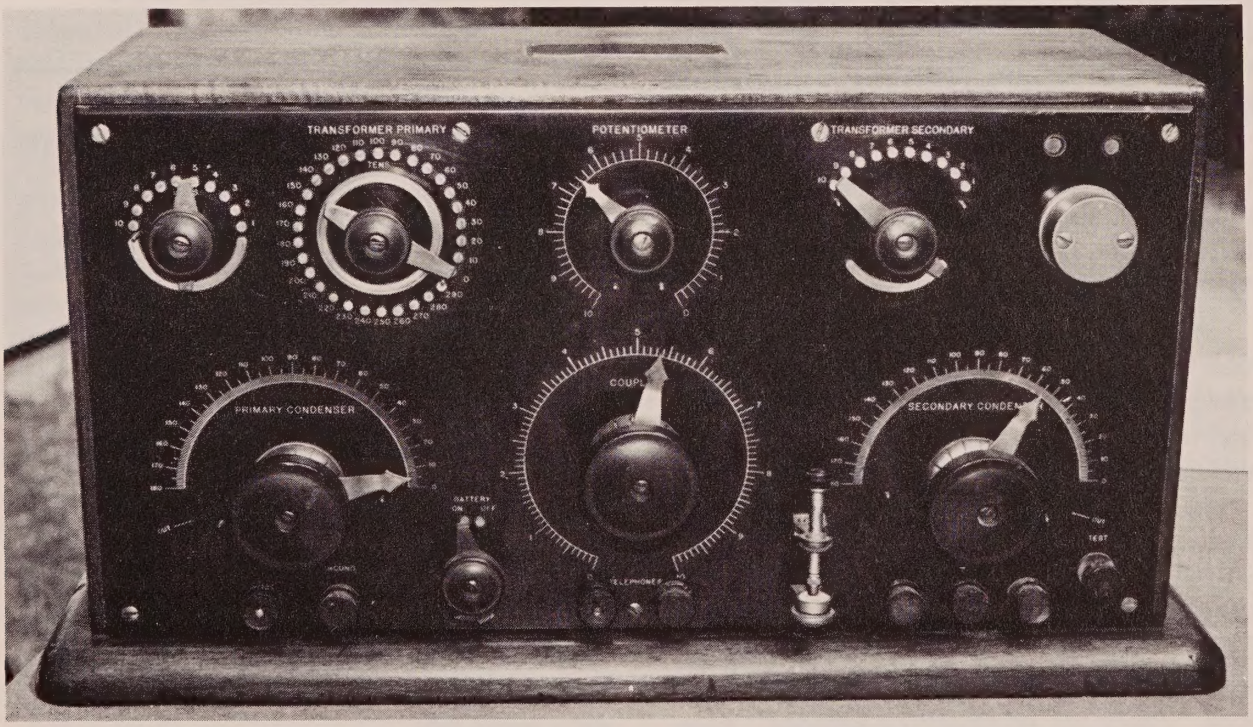
Restored Marconi Model 106 with metal dial plates.

faded spots where the old original dial plates had been. One could tell the size of the plates and type of graduation scale.

The first step was to make templates with the graduation scale for the left and right tuning dials. The same was then done for the potentiometer and the coupling controls (*see photo*).

This was where Woody Wilson was a big help. His son-in-law was a draftsman and made the drawings we needed. Woody then

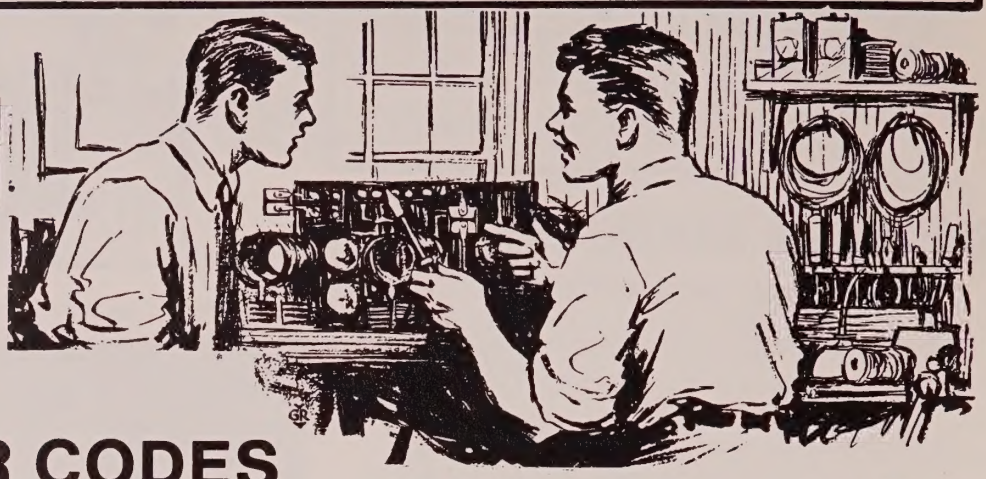
[Cont. bottom next page]



Original Marconi 106 with engraved panel [AWA Museum]

WITH THE COLLECTORS

PROBLEM SOLVERS



COLOR CODES

by Ed Taylor
(Reviewed from IHRS Bulletin)

Color coding was used by manufacturers of a variety of radio parts as a help in distinguishing the various values of equipment. Dial lamps, battery cables, and resistance line cords are some of the accessories that were so identified.

Several types of dial lamps were manufactured to meet the filament-voltage requirements of different sets. In color coded bulbs, the beads on which the filament is mounted come in four hues – brown, blue, pink, and white. A dial lamp with a brown bead is rated at 6.3 volts and 0.15 amp., and is used in sets having tubes of similar rating, such as the 12SQ7.

A blue bead indicates that the filament voltage of the dial lamp is 6.3 and 0.25 amp. for use in sets having 6.3 volt, 0.3 amp. tubes. White is used for lamps of 2.5 volts and 0.5 amp., while a pink bead identifies lamps of 2 volts and 0.6 amp. for battery sets.

Many battery and three-way portable sets have a color-coded battery cable that will tell you immediately what wire should be connected to which battery in case the instructions are lost or a battery plug is broken. The red wire is usually A+; the black wire, A−; the blue wire, B+ *maximum; the yellow one, B*−; the white, B+ intermediate (22½ or 45 volts); the brown, C+; and the green C−. They leave no need for guesswork.

There is a special color code employed for identifying the resistance value in the old line cords used in AC/DC receivers. As a rule, these line-cord resistors have three wires, one red, one black, and a third wire that is the color-coded resistor wire.

In this code yellow means 135 ohms; blue, 160 ohms; white, 180 ohms; green, 200 ohms; light brown, 220 ohms; orange, 260 ohms; grey, 290 ohms; maroon, 315 ohms; and dark brown, 360 ohms. However, if the value is stamped on the plug the color code does not apply.

[Restoring 106, continued]

took the drawings to a friend who was an engraver who made the dial plates exactly like the drawings. Now we were in business. The rest was easy.

The photo shows the set after restoration. Perseverance paid off big as I now have a highly prized set in my collection. The only other set that I know of this type is in the W2ZI collection. The circuit of this rare Marconi receiver may be found in Elmer Bucher's 1917 book "*Practical Wireless Telegraphy*" page 152.

Mounting Speaker Cones

One of the greatest difficulties many servicemen experience when reassembling a speaker is in holding the outside rim of a cone in place on the speaker frame while the cement is drying. The method employed at our shop never fails to line up the cone perfectly.

After shims are placed on pole pieces of the speaker, the cone is lined up around the outer rim of the cone and cement applied on the speaker frame. The rim of the cone is then pressed in place carefully and held with several spring-type wood clothes pins. For small cones six or eight pins are required, but for larger cones 10 or 12 are required to do a good job. --R.J.

BOOK & MAGAZINE REVIEWS

GENIUS AT WORK

Images of Alexander Graham Bell
by Dorothy Eber

(Viking Press, New York, 1982)

This new volume is not a re-hash of the invention of the telephone; in fact it hardly mentions that phase of Bell's life. It is a picture book with comprehensive text covering the later years of Bell and his family in Nova Scotia. There is a lot of little known material and photographs on his work with large tetrahedral kites and hydroplanes. Ms. Eber has done fine work in researching at the Bell Museum in Baddeck, N.S. and at the National Geographic Museum in Washington, D. C.

[Reviewed by Warren Green, W7JY]

NEW BOOK ON TUBES

Hopefully, a new book on vacuum tubes will be available by Conference time. The author, John Stokes, well known vacuum tube historian, has been compiling information on the subject for several years. The contents will be of value to both historians and collectors (450 illustrations for indentification purposes). The book will complement Tyne's "Saga" -- not replace it.

TESLA COILS

Members intersted in purchasing commercially made high voltage resonant coils producing up to and over 1 million volts are advised to contact Resonance Research Co. Pictures in their sales brochure shows pictures with spectacular discharges over 20 feet. For information, write:

Resonance Research, Inc.
Rte. 1, Box 61, Baraboo, WI. 53913

SOUND FROM 78'S

Many old time radio buffs have a collection of 78 rpm records. A modern approach how to play these records is described in June, 1982 issue of Audio magazine. You'll need some modern equipment but it may be worthwhile if you have a valuable collection. The author tells how to clean old records, type of pickup to use and equalizer to produce best response.

SOCIETY OF WIRELESS PIONEERS

Even though the availability of the SOWP "Sparks Journal" is restricted to members, I still want to recognize the excellent historical information in this publication. Somehow Editor Breniman manages to outdo himself with each issue. For example, the most recent Journal (Vol. 4, #4) has an account of the Titanic disaster described by a wireless operator -- information seldom seen in print. In addition, there are detailed descriptions of several high-power commercial stations: Rocky Point by AWA member Carl Maylott, Cape Hatteras (NDW), West Point (WUW), Portsmouth (NMN), Hawaii (KET/KIE) and Annapolis (NSS). Copies are available in the AWA library.

If you are (or were) a commercial operator, you may be eligible for membership. Write to the following address:

SOCIETY OF WIRELESS PIONEERS, INC.
P. O. Box 530
SANTA ROSA, CALIFORNIA 95402

[Continued on next page]

On Review

AVAILABLE AGAIN

ATWATER KENT - W.P.I.'s
FORGOTTEN MILLIONIARE

A history of the man and the company..
16 large pages, well illustrated
$4.00 postpaid

John P. Wolkonwicz, 11 Hartford Rd.
Worcester, Mass. 01606

Videogame History

RADIO-ELECTRONICS, July, 1982

Since Videogames are electronic, members should be aware of their beginning. A lengthy article describing early development and present-day variations is in Radio-Electronic magazine (July).

The idea was conceived in 1966 by Ralph Baer, an engineer at Sanders Associates. His brainchild has mushroomed into one of the largest leisure industries in history-- from a simple TV accessory to highly sophisticated pre-programmed units-- all centered on, of course, modern solid-state circuitry.

--Chas. Willet

A BRIEF HISTORY

of your experiences in amateur or commercial radio is urgently requested by Andy Clark, W4IYT. He is collecting standard cassette tapes of old timers telling of their work with early equipment, station operation, etc. The cassettes will be stored in a fire-proof safe for historical reference. Write:
Florida Skip OT Library, Box 501
Miami Springs, Florida 33166

AWA IN JAPAN

The 1981 AWA Conference received a full 2-page spread of color pictures with description in the prestigious Japanese publication "CQ". Credit for the report goes to Taizo Arakawa, N2ATT.

MAN OF HIGH FIDELITY

EDWIN HOWARD ARMSTRONG

by Lawrence Lessing

This out-of-print book is now available through AWA in paperback form. The biography of the world's greatest radio inventor from birth to tragic death, it is also the story of radio and the intrigue accompanying its commercialization.

Armstrong perfected and is credited with the development of the regenative circuit, superregeneration, the superheterodyne and frequency modulation (FM). A fascinating book every radio historian/collector should read, it also makes a fine gift.

AWA is indebted to the Armstrong Memorial Foundation for the books. Quantity is limited. Cost: $1.25 at Museum store or by mail with 50¢ handling/mailing. Send check for $1.75 to *AWA MUSEUM FUND* and mail to:

Dexter Deeley, 8 Briar Circle
Rochester, NY 14618

It is the story of a man's unshakable determination to discover the secret of perfect sound, and once invented, to have it used. And it is the startling revelation of a broadcasting company's challenge to the inventor's right to the rewards of his own invention.

RESTORING

an old receiver or early piece of equipment? If so, write and tell us about it. We're interested in "Short Problem Solvers" as well as detail restoration projects....

THE MUSEUM

A.W.A. HISTORICAL MUSEUM

East Bloomfield, N.Y.
Bruce Kelley, Curator

Museum Hours:
Sunday ——— 2 to 5 P.M.
Wednesday ——— 7 to 9 P.M.
May through October

Open to groups by appointment
Tele. (716) 657-7489

Free Admission

Museum Telephone:
(716) 657-6260

NEW EQUIPMENT in A.W.A. Museum

(sets, parts, magazines, books, etc.)

W1PNY, W2GB, W2HYN, W2OBM, W2QO, WA2ZNC, J. M. Meagher, Bob Ryan, C. Larrabee, M. Shaw, P. Feldman, Fred Penard, Jim Graham, Fred Kahlert, Finn Stewart, A. Anderson, Hal Voorhis, Jim Meagher, W6RCV, W8PO

Unusual equipment includes a rare Sargent (not Sargent-Rayment) communication receiver plus a fascinating collection of unorthodox variable condensers-- all from W2GH/R.P.I.

MUSEUM ACTIVITY

The AWA Museum has been the setting for several commercial television shows this year. In the spring, a "PM Magazine" team paid us a visit and used historical material as a theme in one of their programs. At this writing, we expect a camera crew from the Canadian Broadcasting Company to photograph early Marconi equipment.

CBC is making a movie covering Marconi's work at the turn of the century. It would appear that the AWA Museum is the only source of operational material of that period: a complete 1906-7 ship installation, 1896 replica coherer receiver/spark transmitter, and 1905-07 and 1910 Fleming valves with detector units.

On the local front, AWA recently played host to the area SMPTE Chapter's annual summer meet. The engineering staff from TV/AM/FM stations as well as members local industries were in the group.

MUSEUM ATTENDANCE this past summer has been good, possibly because of free admission and extensive advertising. AWA printed and distributed nearly 5000 brochures in addition to having the museum listed in several New York travel/tourist publications and monthly radio magazines.

Visitors came from all walks of life: groups of elementary grade school children, engineering clubs, and families out for a ride. As in the past, we also had our share of out-of-country visitors. Typical was Herman de Rooy of Philips Corp., Eindhoven, Netherlands, who stopped in one Sunday afternoon.

The Association is fortunate in having 22 knowledgeable guides who demonstrate equipment, answer questions and show visitors the many exhibits. This brings up the subject of display material.

As our museum is for the general public (as well as members), it must have a variety of material, not shelves and shelves of broadcast receivers. Thanks to the AWA members, AWA has this variety.

OLD TYME HAM ADS

OLD TYME ADS are FREE to members interested in collecting and restoring early radio equipment for personal use.

RULES FOR ADS:

1. Only ONE ad per issue per member. Send SASE for acknowledgement.
2. Material must be over 25 years old and related to electronic communication.
3. Give full name, address and zip (and call).
4. AWA will not print repetitious ads or ones indicating regular sale or profit.
5. The Association is not responsible for ANY transaction.
6. AWA retains the right to reduce size of ad if over SIX (6) lines.
7. Only ONE ad per issue (no doubles).
8. Deadline for ads:

March issue--JAN. 10 Sept. issue--JULY 10
June issue ---APR. 10 Dec. issue--OCT. 10

Ads received AFTER the above dates will be discarded. Mail ALL ads to: (Not Headqtrs.)

RICHARD RANSLEY
17 SHERIDAN ST., AUBURN, NY 13021

WANTED

--VT-5 or R215A peanut tubes, good or open filaments. Also want an early wireless Marconi radio or detector. Bernard Payne, 116 Palisway Dr. S.W., Calgary, Alberta, Canada T2V 3V6 (403) 281-4341

--Paragon RA type tuner to go with DA2 amplifier. Have a small antique horz. Sterling cycle engine for trade or other radio items. Have battery eliminators for sale. SASE for details. Peter Yanczer KOIWX, 835 Bricken Pl., St. Louis, MO 63122

--television sets made before 1950, any condition. Ken Monnier, 213 Hillcrest Ct., Sidney, OH 45265 (513) 492-4785

--Paragon sets. Have Tuska 225 with amp and Wireless Speciality Co triple detector stand for possible trade or buy Paragon outright. Need Philco chassis 44, 504, 144 & Crosley 123 or 59. State price. Jotn Thuring, 150 Highland Cross, Rutherford, NJ 07070 (201) 935 0047

--1947 Trayler/Air Castle portable model 5028 or 5029, Precedent FM tuner, Regency hi-fi amp, Lear wire recorder, hi-fi mags from 1950-55. H. Layer, AV-SFSU, 1600 Holloway, San Francisco, CA 94132

--pre WWII RX, HRO, NC101X, SW3, NC200, HQ120, RME etc. Sell or trade 250THs/sockets & fil. transformers, GR Output meter, sounders etc. SASE for list. Horace Goss, W1AB, Crosstrees Hill, Essex, CT 06426

--Aero & Pilot units and parts including pwr xfmr and supplies, Pilot .5&10 meg grid leaks, 2k and 20 ohm center tapped resistors. Also Aero xmtr kit coils 4080K, 2040K & 9018K. A.C. Stoddard, 1502 Briarwood, Lansing, MI 48917

WANTED

--West coast group seeking information on early radio companies in L. A. area making speakers, eliminators, etc. Any info appreciated. Floyd Paul, 1545 Raymond, Glendale, Calif. 91201

--Japanese and German tubes and radio gear, WWII or earlier and related literature. Buy or swap. Alan Douglas, Box 225, Pocasset, MA 02559

--power supply for AK model 325-E console. Uses a six pronged plug-in. Also need 1920s Radio Craft magazines. State price and condition. David Bryan, WA0EUJ, 5313 W 10th, Topeka, KS 66604

--tubes, 4 UV 201A brass based Radiotron tubes, 2 brass based WD 11s. Felix Luetold, Langenhagweg 2, CH-4153 Reinach (Switzerland)

--Howard receivers models 450 and 490. Bob Stephen, 402 Chestnut St., Mt. Shasta, CA 96067

--Morse relay - straight or polar and Morse register. Also any electro-mechanical encoding or decoding device as Endograph or Enigma. Glen Fuller, 76 Hiler Ave., Kenmore, NY 14217

--Daven neon tube for early disc tv. Early AK radios, Blue Arcturus 01A's. James Notaris, 1100 Welsh Rd., Ambler, PA 19002 (215) 646-3631 evenings

--need the two dual .00035 tuning condensers for the Bremer-Tully "Counterphase". Also one B-T audio. H.W. Burt, 1000 Plaza del Sol, Roswell, NM 88201

--Looking for & would like to buy back homemade 2 stage Aeriola amp I made from RCA spare parts in about '72. It had an authentic Radiola panel and W.E. xfmrs. Was adv. by J. Drake in Nov.72 ARCA bltn. Rodney K. Schrock, 402 Lincoln St., Somerset, PA 15501

--Western Electric tubes, amps, tweeters, drivers, speakers, horns, mixers, microphones, networks and parts. David Yo, P.O. Box 832, Monterey Park, CA 91754

--Crosley Harko, Jr. crystal receiver wanted for Gray History-of-Wireless Museum. Charles Williams, 400 Broadway, Cincinnati, OH 45202

--Western Elec. 1A loop ant. and/or 10A Bat. Box for W.E. 4B recvr. Also Mono pre-amp Heath WA-P2 or Dyna Kit with schematic or manual. J.W. Gleich, 64-10 Woodbine St., Ridgewood, NY 11385

--Atwater-Kent Model 10 or 10B. Negotiable Alain Tamburini, 53 ter, rue Edoulard Herroit, 70300 LUXEUIL-les-BAINS, France

--manual for early tubes and user manual for Simpson model 1000 tube tester. (repro will do). Also Canadian made battery sets. Bob Murray, 3216 Assiniboine Ave., Winnipeg, Manitoba R3K 0B1 Canada

WANTED

--Harvey Radio Labs Model 90-T amateur transmitter manual,diagram or info. Also need tone control knob for SX-28. Leland Smith, W5KL, Route 3, Jasper, AR 72641

--Zenith Super VIII or IX, AK Model 60 in keil table, Spherical Audion,scanning disc televisions. G. Biraud, Place du Puits Lavau 85200 FONTENAY LE COMTE, France

--five gang tuning condenser for Zenith model 52.Must be good. Also Crosley AFTs for model 52,need not work. Mark Zimmer, 614 Main St., Davenport, Iowa 52803

--E.H.Scott Philharmonic complete with cabinet if possible. Bob Miller, P.O. Box 416, Babson Park,FL 33827 Tel. (803) 638-6756

--chassis for Philco 60 or Zenith 5-S-29, escutcheon plate,speaker bolts with ornamental Phillips heads for Philco 20, knob for AK cathedral.Have Echophone, Jackson cathedrals plus Dayfan and others.SASE for list.Gary Hill, 1507 Ridge Ave., New Castle,PA 16101

--Kodel C11 one tube set 1924 page 121 of V.R. Jack Wallace, 5516 Gilbow Ave., River Oaks, TX 76114 (817)732-5189 after 6 P.M.

--American Bosch batteries,manuals,literature. Have other sets to trade. Also need info on Argus Radio Co. sets. All postage refunded. Kent King, 5028 Dierker, Apt. C2, Columbus, OH 43220

--Welsh 501 type peanut tube,National FB7 recvr working or not. All letters answered. L.J. Schnedorf, 610 Monroe Ave., River Forest, IL 60305

--AK E or E3 speaker for metal box radio and AK cathedral radio. David Taylor, 108 Bass St. Tallahassee, FL 32301

--3 Magnaformer IF transformers RF61, 2 Ferranti audio transformers AF4, 3 Amperite self adjusting rheostats 1-A or junker Magnaformer superhet. John A. Rawlins,1920 Stephenson Dr., Mesquite, TX 75149

--want wiring diagram for General Radio power supply type 857-P1. Any information on this would be appreciated. Louis Auerbach, 152-13 Roosevelt Ave., Flushing, NY 11354

FOR SALE/TRADE

--Gonset Commander II,L&N low freq. audio amp,Clough Brendle type CRA scope, Hallic. S-20-R Sky Champion & Sky Rider Jr.,Vocaline JRC-425 transceivers,Browning Drake & much more.SASE. Joe Horvath, 522 Third St.,San Rafael,CA 94901

--General Radio test equipment, FM and AM signal generators. SASE list. Marc Glaser, K2GR, 50 Colgate Dr.,Plainview,NY 11803

--Museum clearance of duplicates:British and European tubes,Dutch Philips 1923 to 1940. Prices reasonable. Fin Stewart,674 Great Western Hwy.,Faulconbridge,N.S.W. 2776 Australia

--Caphart type G radio-phono excellent, Victor Victrola w/Radiola 20,E.H.Scott model 510,Victor 10-50 phono,many other AC and battery sets. SASE for list. Joe Halser, 2438 So. Howell Ave.,Milwaukee, WI 53207 (414) 744-8825

--Scott 800 (1947) AM/FM/SW. in good working condition. Garrard 88 changer however cabinet needs work.Have some Scott literature.Also have 1949 Admiral 30A1 TV w/manuals. Edgar Roy, 11 Rendall Road, West Roxbury, MA 02132

--battery radios,horn speakers,Riders 1-14,books etc. Send SASE for list. Want plug-in coils for Grebe CR-18 and General Radio tube sockets,door for Zenith Super VII.Bob Lane, 2301 Independence Ave.,Kansas City, MO 64124

--battery sets,horn speakers,cathedrals, tombstones and other early AC sets. Large SASE for illustrated list.Need cabinet for a AK 90.Will buy or trade. Herman Fothe, 10 Jackson St., Sloatsburg, NY 10974

--Splitdorf 5 tube TRF with A&B power supply.Garod 1923 RAF Pastime reflix with crystal detector.Trimm concert speaker,xtal sets and phones. SASE for list. H.D. Utz, 3406 Kentfield Dr., Sacramento, CA 95821 (916) 483 9966

--spherical audion in original box.Also AK-12 and 10 for trade. R. Brewster, 454 Diablo Dr., Pittsburgh,PA 15241 Tel (412) 833-4287

--old tubes -have over 10,000 on hand. Reasonable prices.Will sell or swap for AK breadboard parts,etc. Rick Weibezahl, 305 Belvidere Ave., Washington, NJ 07882

--RCA sound cabinet apparently built for movie theatre about 1936 with voltage amp,mixer,expander,compressor.Housed in rack cabinet. $100. Henry Schwartzman, 123 Bridge St.,Corning,NY 14830

--schematics available for 1921-1961 radios, TVs etc. $3.50 each postpaid. Money refunded if I don't provide at least a schematic.Give all info on requests. Alton Bowman, RD2, Canandaigua, N.Y. 14424

--RADA by Westinghouse w/o tubes,vy good but missing main tuning knob; $110.,but would prefer to trade.Want Kennedy XI chassis, National 1-10 power supply type 5886AB. William Alvarez, 19867 E. Vista Hermosa Dr., Walnut,CA 91789

--Western Electric sounder 3C $25., Blaupunkt 4 band AM/FM portable $25., 2 BC 611 Handy Talkies $35. each, 861 tube for display only $ 20. Plus shipping charges on all the above. F.W.Chapman, Apt.B-218,1130 North Lake Parker Ave, Lakeland,FL 33805

--Solid state "B" battery eliminator for portable tube equip.Compact design using 9V transistor battery. SASE for info. Mark S. Starin, 69 Illinois St., Rochester, NY 14609

--Hammarlund HQ-140XA,Good condition, $130. Ed Best, 2004 University Drive, Durham,NC 27707 Tel. (919) 489-2164

FOR SALE/TRADE

--Radiola model 62 High Boy,cane back complete with tubes.Cabinet fair,chassis complete but not tried out. Charles Kaelber, P.O.Box 3335,Spring Hill,FL 33526 Tel. (904) 683-7202

--1920-1960 QSTs, might break up.Riders 1-16 $100.Many new tested tubes $2. ea. Crosley 50,AK84 plus misc service manuals.Need Radiola 26 panel and horn driver,RS parts. Merrill Bancroft, 169 S. Row Road, Townsend, MA 01469

--limited copies of SAGA-hardcover $9.95 or softcover $6.95 plus $1.25 for postage & handling. 10% of proceeds to museum fund.Want Pooley AK-10,David Grimes 3XP or Hammarlund Roberts cabinet. Don Patterson,636 Cambridge Rd., Augusta, Georgia 30909

--trade National Carbon "Eveready" No.1 (1927 ac set) for early factory crystal recvr. Ira Smolowitz, 15 Settlers Lane, Ballston Lake, NY 12019

--Riders Vol. 1-5 abridged plus 6-16 in good condition $110. plus shipping.Can bring to Canandaigua if arranged. Al Jochem, 2205 Broadway, Quincy, IL 62301

--Mallory Radio Service Encyclopedia has data on almost every make and model before 1946. $15 plus shipping. A.Smith, Stonehedge, Lincoln,MA 01773 617 259-9351

--Gribsy-Grunow Majestic dynamic loudspeaker G-3 for chassis 90-100. Weighs 19 lbs. unpacked. Offers.Send SASE for 4 page list of transmitting parts 1932-1957 era. Joe Keese,W8VSK, 47270 West Main St., Northville, MI 48167

--Kederal 110,Kennedy 110 & 525, six UV type Brightson Blues,Rola cone spkr, Neutrowound (1927). Send SASE for more. Want Radio Retailing mags.'25-28. Floyd Paul, 1545 Raymond, Glendale,CA 91201

--Majestic 30 cath. $70.,AK model H horn for $45,Jewell 209 tube tester $35, Haevey Wells Bandmaster $40.,RME 85 $65., tubes and magazines. SASE for complete list. Ron Boucher, 376 Cilley Rd., Manchester, NH 03103 (603) 669-1698

--Hallicrafters SX-25 with speaker for $75. prefer pickup. Will swap or trade for SW-3 or what have you. John Uscinowski, RR#1, Box 379, Greenwich, NY 12834

--Millen 90800 exciter $30,Gonset 10-11 conv. $15,Philco 84 cath. $40,Army TG35 code mach. w/11 tapes excellent $55, AK55 chassis & speaker $40., 2 EIMAC 100THs $45.All plus shipping. William Ernst,1619 Campbell Rd.,Comins,MI 48619

--Colonial,Crosley,Radiola,Appleby and AK radios,Jewett and AK speakers,tubes, parts,magazines. Send SASE for list. A. Evangelista,701 Warm Spring Rd., Chambersburg,PA 17201 (717) 263-1693

EARLY NEWSPAPER CLIPPINGS

1905 - 1912

GERMAN SCIENTIST SEES PERIL IN WIRELESS AGE

Says It Will Make Humans Wear Metal, Insulated Clothing.

Berlin, June 3.—If the German scientist Hensingmuller's theories are correct, the approaching wireless age will compel people to wear metal insulated suits to protect them from deadly electric wave dangers. He says a weird new form of violent toothache has already resulted among those exposed. He anticipates that those who are exposed will lose their hair and some of their senses and even their lives.

The scientist points out that there is no essential difference between wireless waves and X-rays, the terrible nerve-shrivelling effects of which are well known. He estimates that only one three-hundred millionth part of the electrical energy generated for a message transmittted between stations only one mile apart is actually used. The rest, he says, is dispersed in the attmosphere and his people somewhere.

STORM TOPPLES WIRELESS TOWER

NAUEN, Germany, March 30.—A terrific storm caused the collapse this morning of the great skeleton tower 656 feet high, belonging to the German wireless station here. There were no casualties. The tower was recently doubled in height and apart from the Eiffel tower in Paris, was the highest steel skeleton tower in the world. A new plant was recently provided at the station by means of which it was expected that communication would be made with the stations in America.

WIRELESS OPERATOR IS KILLED AT HIS POST

BERLIN, Dec. 24.—What is believed to be the first case on record of a wireless operator being killed at his post occurred last night at Norddeich, the great German wireless station near the North sea. The operator, a man named Muller, must have carelessly come into contact with the wires employed for the creation of electric waves, which are charged with such powerful voltage that death comes instantaneously to anybody touching them.